STATE OF MAINE
PUBLIC UTILITIES COMMISSION

DOCKET NO. 2015-00360

December 22, 2016

EMERA MAINE
Request for Approval of a Proposed
Rate Increase

ORDER - PART II

VANNOY, Chairman; MCLEAN and WILLIAMSON, Commissioners

I. SUMMARY

On December 19, 2016, the Commission issued its Part I Order in this matter which rejected Emera Maine's proposed increase in distribution delivery rates filed on March 21, 2016. In its place, the Commission authorized Emera Maine to increase its distribution delivery rates by $3,001,801, or 3.75%[1] as of December 20, 2016. This Part-II Order sets forth the Commission's full findings of fact and rationale for the Commission's decision.

II. PROCEDURAL HISTORY

On December 2, 2015, pursuant to the provisions of 35-A M.R.S. § 307, Emera Maine (Emera or Company) filed a Notice of Intent to file for an increase in the distribution rates of both the Company's Bangor Hydro District (BHD) and Maine Public District (MPD). According to this Notice, the Company intended to request a $6.5 million, or 8.0%, increase in its overall distribution revenues. The proposed increase was based on a return on equity of approximately 10.25%. Emera Maine proposed that the rate increase be recovered through an across the board increase in all core rates for both districts.

A Notice of Proceeding which provided interested persons with an opportunity to intervene in this matter was issued on March 3, 2016. The Office of the Public Advocate (OPA) filed a petition to intervene which was granted without objection.

On March 21, 2016, Emera Maine filed its direct case which consisted of the testimonies of: Peter Dawes, V.P. of Strategy, Performance, and Planning; Karen Holyoke, V.P. of Customer Experience; Alan Richardson, President and C.O.O.; Stephen Sloan, Manager for Transmission Development; Timothy Olesniewicz, Rates and Regulatory Analyst; Dr. George Criner, Consultant and John Perkins, Consultant. In this filing, Emera calculated the distribution revenue shortfall to be $6,642,898 and, thus, requested that it be allowed to increase its distribution rates by 8.3%.

[1] The Part I Order referenced the percentage increase at 3.7% when taken to the hundredth decimal place the increase is correctly stated as 3.75%.

Based on information contained in the Company's filing, as well as additional information available to the Commission, on April 13, 2016, the Commission initiated a management audit of Emera Maine to be conducted as part of this rate proceeding pursuant to 35-A M.R.S. § 113. [2] In initiating the audit, the Commission noted that because the results of the audit might impact the Commission's determinations of revenue requirements and rates to be set at the end of this case, the Commission would direct the auditor selected for this project to complete its work in sufficient time for the parties to respond to the auditor's findings and recommendations.

The OPA submitted the Direct Testimony of Dante Mugrace and Dr. Marlon Griffing in response to the Company's case on June 1, 2016. On June 2, 2016, the Staff filed a Bench Analysis in response to the Company's direct case. Technical Conferences on the Company's case, the OPA's direct and the Staff's Bench Analysis were held on May 10, 2016; May 11, 2016; and June 23, 2016.

The Company submitted its rebuttal case consisting of the testimony of Mr. Dawes, Mr. Perkins, Mr. Sloan, Ms. Smith, and Mr. Olesniewicz on July 14, 2016. The Company submitted the Supplemental Rebuttal Testimony of Mr. Dawes regarding the acquisition of Swan's Island Electric Cooperative (SIEC) on September 6, 2016.

On August 8, 2016, the entity selected to perform the management audit, the Liberty Consulting Group, submitted its Final Report on an Audit of Emera Maine's Management Practices, Customer Information System and Service Quality (hereinafter the Management Audit Report or the Liberty Report) in response to the Commission's Order Initiating Management Audit.[3] Technical conferences on the Company's rebuttal case and on the Liberty Report were held on August 12, 2016 and August 15, 2016. Replies to the Liberty Report were filed by the Company (consisting of the testimonies of Ms. Holyoke, Mr. Richardson, Mr. Dawes and Steven Selders/Dustin Thielacker) and the OPA (consisting of the testimony of Dr. Karl Pavlovic) on September 8, 2016. On that same date, the Staff filed a Reply Bench Analysis and the OPA filed its surrebuttal case (consisting of testimonies of Mr. Mugrace and Dr. Griffing). The OPA also filed Comments on the Acadia Substation on September 8, 2016. Technical Conferences on the Replies to the Management Audit and on the Dawes Supplemental Rebuttal, the Staff's Reply Bench Analysis and the OPA Surrebuttal were held on September 28, 2016 and September 30, 2016.

On October 7, 2016, Liberty filed a Response to the Replies to the Management Audit; the OPA filed the testimony of Dr. Pavlovic in response to the Company's Reply and the Company filed the Reply Testimony of Selders/Thielacker in response to the Reply Testimony of Mr. Pavlovic. The Staff also filed a Supplemental Reply Bench Analysis on October 7, 2016. A technical conference on these filings was held on October 13, 2016.

---

[2] Order Initiating Management Audit, (April 13, 2016) at 1 and 3.

[3] Liberty Consulting was selected to perform the audit ordered by the Commission pursuant to the State of Maine's Request for Proposals (RFP) process.

Public witness hearings in this matter were held on July 20, 2016 in Bangor, Maine and on September 29, 2016 in Presque Isle, Maine. Hearings on the pre-filed testimonies, the Staff's Bench Analyses and the Management Audit Reports were held on October 20 and October 21, 2016.

The Company and the OPA filed briefs and reply briefs in support of their respective positions on November 4, 2016 and November 14, 2016. The Hearing Examiners issued their Examiner's Report on December 5, 2016. Exceptions to the Examiner's Report were filed by the Company and the OPA on December 12, 2016.

III. TRADITIONAL REVENUE REQUIREMENT ISSUES[4]

A. Rate Base

1. Position of Parties

In his direct testimony of June 1, 2016, Mr. Mugrace questioned the estimates that Emera had used to calculate the capital additions for the future periods. Mr. Mugrace recommended certain adjustments in his testimony based upon his comparison of budgeted versus actual capital spending for the BHD and the MPD. In addition, Mr. Mugrace noted that Emera had used two allocation factors: a 100.04% allocation assigned solely to transmission plant investment and a 12.60% allocation assigned to plant investment related to General Property, Intangibles, and Relicensing based upon the Company's 2015 year-end information consistent with the BHD OATT. Mr. Mugrace agreed with the 100.04% allocation factor for Transmission plant investment. However, he did not agree with the Company's 12.60% allocation factor related to General Property, Intangibles and Relicensing. He recommended using the allocation factor of 13.35% which is the actual 2016 OATT factor. He used the Actual 2016 factor of 13.35% to coincide with the use of a 2015 Test Year that he recommended in the development of his Revenue Requirement.

Subsequently, in his Surrebuttal Testimony, Mr. Mugrace noted that Emera had accepted the use of the 2016 Allocation Factors and limited his proposed adjustments to the level of Base Capital Additions. Mr. Mugrace stated that he was not convinced that the Company will fully have in place the total forecasted Base Capital Additions level of $58,528,762 through the end of December 31, 2017 given that the Company has been behind in its capital spending, and continues to be behind as of July, 2016. Therefore, Company has not fully demonstrated that these plant additions will be in service, and used and useful in the provision of utility service. Based on his review of Emera's data responses, Mr. Mugrace determined that the Company had placed into service 75% of forecasted plant expenditures since July 2016. Using that estimate to determine the Base Capital Additions for the remainder of 2016 and for all of 2017, Mr.

[4] The Commission addresses what would be considered traditional revenue requirements issues here. Issues involving the prudence of investment and expenses and the cost of capital, which is impacted by the Commission's decisions on management efficiency, are addressed in sections IV-VII.

Mugrace determined that the level of Average Base Capital Additions for the period ending December 31, 2017 should be $50,717,295. Mr. Mugrace also made corresponding adjustments to the depreciation reserve, accumulated deferred income taxes and the working capital allowance to reflect his recommendations to rate base for the Base Capital Additions.

The Company did not agree with Mr. Mugrace's proposed adjustment. In his rebuttal testimony, Mr. Dawes states that while the Company was off to a slow start with regard to executing its capital plan in 2016, process changes and resources have been deployed to ensure the Company will fully execute its base capital plan for 2016. In May 2016, the capital spending was on forecast and in June 2016, base capital spending was well in excess of the 2016 forecast. As of the end of June 2016, the Company's base capital spending[5] on a year-to-date basis is ahead of forecast. Mr. Dawes testified that this demonstrates the Company's commitment toward meeting its capital spending targets for 2016. Given "execution of the capital plan for 2016 and similar results for 2013 through 2015, it is also likely the 2017 forecasted capital spending will be achieved."[6] The Company did agree to adopt the use of the 2016 transmission allocators.

2. Decision

The Commission agrees with Emera's position that spending early in any given year is not necessarily reflective of the totals to be spent by year-end and that it is not uncommon for utilities to either incur or recognize significant capital expenditures close to the end of the construction season. As reflected in the Company's testimony, by the end of June, the Company had exceeded its targets for Base Capital Additions for 2016 and in recent years Emera's spending has met its proposed capital additions budget. The Commission finds that there is a sufficient basis to accept the Company's proposed Base Capital Additions for 2016 and 2017 and therefore, adopts Emera's proposed adjustment for Base Capital Additions.

B. Expense Items

1. Test Year

a. Position of the Parties

Emera made its initial rate filing based upon a 2014 test year stating that "we have developed the Distribution Revenue Requirements using a 2014 test year since the Company's 2015 FERC Form No. 1 is not yet complete and the transmission rate formula updates have also not been prepared for filing at FERC. "Therefore, the

[5]Mr. Dawes described the base capital plan as follows: "Yeah, so it would be our base capital plan. So that would be new customers, work for the DOT, fleet vehicles, IT, it's all of the smaller things. We have about a 25 to $30 million total base capital budget each year." 5-10-16 Tr. at 39

[6] Dawes Reb. Test. at 11.

Company stated that the use of a 2015 test year is not achievable."[7] Emera adjusted the 2014 for known and measurable changes through the rate effective period ending December 31, 2017. In his Direct Testimony, Mr. Mugrace stated that the twelve months ending December 31, 2015, is a reasonable test year to use in this case to evaluate the reasonableness of the Company's proposed revenue requirement increase instead of the Company's proposed December 31, 2014 test year.[8] The Company in its rebuttal filing accepted Mr. Mugrace's use of the 2015 test year for O&M expenses.

In its Reply Bench Analysis, the Commission Staff noted its concern that adopting a new test year mid-course during the rate proceeding, as Emera Maine has proposed, is not appropriate as it reduces the amount of time available for complete analysis of the impact of such a change and that necessary adjustments for known and measurable changes through the rate effective year may be missed when adopting a new test year.[9] Specifically, Staff noted that the 2015 balances in Account Nos. 921, General Offices Supplies & Expenses and 928, Regulatory Expenses were anomalous when compared to balances in those accounts in prior periods. At the Technical Conference held on September 30th, Staff and Emera discussed these accounts and Emera asked whether Account 923, Outside Services appeared abnormally low and then offered the explanation that Account 921 may be abnormally high as a result of an accounting charge. Staff replied that we would have to look at it and a revised response in itself might raise further questions. The Staff's Reply Bench analysis also noted concern that Account 928, Regulatory Commission Expenses was 28% higher in 2015 than it was in 2014 and approximately 57% higher than in 2013. Emera Maine did not explain the reason for this increase in its rebuttal filing.

Emera supplemented its response to ODR-004-006 on October 5, 2016 providing its explanation as to the cause in the fluctuations in the accounts. On October 14th, Emera filed an additional supplemental response to provide 2016 information through September. In its Brief, Emera stated that "given the importance and relevance of using the most recent financial data to make sure that the rates are based on the most accurate estimate of 2017 costs, the Commission should accept Emera's proposed 2015 test year adjustment related to operating costs." Emera Brief at 10.

b. Decision

The selection of the test year is a decision made by the utility making the rate filing. Chapter 120, Section 2(L) of the Commission's Rules defines test year as:

> "a 12-month period used by a utility to serve as a basis for comparison of revenues, expenses, and investment in order to determine revenue requirements in a general rate case. A test year may be a calendar year or any other period of twelve (12) consecutive months."

---

[7] Direct Testimony of Peter Dawes at 2.

[8] Direct Testimony of Dante Mugrace at 5.

[9] Staff Reply Bench Analysis at 2.

Emera stated in its brief that Staff accepted all of Emera's other updates in its revenue requirements where more up-to-date information for 2015 and 2016 was utilized. It is inconsistent for Staff to view these items differently, particularly given that Staff did not object to the other 2015 and 2016 related updates that resulted in a reduction to the revenue requirement.[10] Emera also stated that in response to concerns raised by Staff in the Reply Bench Analysis, Emera performed more analysis and provided additional information on comparative annual O&M expenses for 2012 through year-to-date 2016 in its supplemental response to ODR-004-006 Attachment A. Emera notes that this review resulted in additional adjustments.

The fact that more adjustments were found highlights Staff's concerns about using the later test year. The Commission agrees with the proposal that more current data is generally better data. The Company's approach in its rebuttal testimony went beyond updating its direct case. Instead, the Company did one lump adjustment to its O&M costs to reflect the new test year and did not re-evaluate the data to make an informed decision as to whether the new test year is representative or if normalization or some other basis would be the better approach.

Emera is in the best position to determine the appropriate test year and that decision is made prior to the filing when the utility evaluates its accounting records to determine the "known and measurable changes" needed to properly reflect the rate year costs. Emera notified the Commission of its plans to file a rate proceeding on December 2, 2015 and subsequently filed its distribution rate case on March 21, 2016. Emera's statement in its initial filing that it could not use 2015 as a test year is not credible. Emera's financial year ends on December 31st. Emera filed its FERC Form 1 (due by April 18th) on April 15, 2016. 2015 data was available for Emera to use as a test year but Emera chose not to do so. In addition, Emera would have provided year-end 2015 data to its parent company auditors to enable Emera parent's audited financial statements to be issued and these statements are generally issued prior to the finalization of the FERC Form 1. The Commission finds it unlikely that Emera did not have information to evaluate whether the difference between 2014 and 2015 would warrant either filing using the 2015 data available or even waiting an additional month until the FERC Form was completed to develop the distribution rate case.

What Emera has done, and the OPA seems to support, is a mid-case change in test year. By virtue of the requirements of 35-A M.R.S. § 310, rate cases are by definition conducted in a very compressed timeframe. It is thus essential that the Commission have the test year data that the Company will be relying on at the beginning of the case so the Company's proposed revenue requirement can be fully vetted. While the Company's new 2015 test year is more current, it is not necessarily more accurate. The Commission, therefore, rejects the Company's proposal to use a new test year as part of its rebuttal filing.

---

[10] Emera Brief at 9

2. Inflation

a. Positions of the Parties

For those expense items that have not already been adjusted for known and measurable changes, Emera initially proposed applying inflation rates based on Moody's calculations for years 2015, 2016 and 2017.[11] In its Bench Analysis, Staff recommended the Commission utilize actual inflation rates as reported by the U.S. Bureau of Economic Analysis (BEA) and projected inflation rates as forecasted by the Congressional Budget Office (CBO).[12] The Staff reasoned that as non-partisan government agencies, the BEA and CBO provide accurate actual inflation rates and unbiased forecasted rates. The 2015 rate is the actual inflation rate reported by BEA as measured by the GDP-PI; the 2016 rate is the average of the quarterly rates reported and forecasted by the BEA and CBO based on the most currently available data; and the 2017 rate is the CBO's projected inflation rate.

In response to the concerns raised by Staff in the Bench Analysis, in its rebuttal testimony Emera proposed inflation rates based on an average of Moody's, Blue Chip Financial's and Staff's proposed rates. In its brief, Emera recognizes that the Moody's forecast is included in Blue Chip Financial's inflation forecasts and proposes to apply inflation rates calculated based on an average of Blue Chip Financial's and Staff's values proposed in the Bench Analysis.[13] The result is proposed inflation rates for 2016 and 2017 of 1.55% and 1.90%, respectively.[14]

b. Decision

The Commission finds that the best method to calculate actual inflation is to utilize a government source as recommended by Staff. Therefore, we will use the BEA actual calculation for 2015 and use Staff's blend of government calculated actuals and forecasts for 2016. For 2017, we find the approach suggested by Emera in its Brief, to average the results from two reliable forecast sources, to be reasonable and thus accept it. The inflation rates for 2015, 2016 and 2017 are 1.00%, 1.53% and 1.90%, respectively, as detailed in Table 1 below. [15]

---

[11] Dawes Pref. Dir. Test. at PD-90.

[12] Staff Bench Analysis at 32.

[13] Emera Brief at 16.

[14] Because the Company updated its expenses to include actual data for 2015, only 2016 and 2017 inflation rates were addressed in their rebuttal filing and brief. The Company's original 2015 inflation rate of 1.09% was based only on the Moody's rate.

[15] The 2015, 2016 and CBO forecasted 2017 rates are as stated in the Bench Analysis. At the 10/21/2016 hearing Staff agreed that updating for data currently available at that time resulted in an immaterial change to the inflation rate and the Bench Analysis amounts would be used. See Tr. at 84.

Table 1

Period	Rate	Source
2015	**1.00%**	**BEA Actual**
2016 Q1	1.26%	BEA Actual (4/28/16 release)
2016 Q2	1.44%	CBO Projected (Jan 2016)
2016 Q3	1.78%	CBO Projected (Jan 2016)
2016 Q4	1.65%	CBO Projected (Jan 2016)
2016 Average	**1.53%**	**2016 average**
2017	1.77%	CBO Projected (Jan 2016)
2017	2.03%	Blue Chip Financial
2017 Average	**1.90%**	**2017 Average**

3. <u>Bad Debt</u>

a. Positions before the Commission

In its initial filing, Emera proposed a rate effective year bad debt expense amount of $1,796,193. Emera arrived at this figure by averaging its annual bad debt amounts for a five year period from 2011 through 2015, which was $1,659,257, and subtracting this number from the 2014 test year bad debt amount of $2,101,271, to arrive at a gross reduction of $442,014 in test year expense. According to Emera, it chose to use a five year average to smooth out spikes or bumps in the annual bad debt statistics.[16] Because some bad debt expense is allocated to transmission, Emera used a 30.98% allocator formula to allocate $136,936 of the test year reduction to transmission expense and allocated the remaining reduction of $305,078 to distribution expense.

In its Bench Analysis, Staff expressed concern about the trend of increasing bad debt experienced by Emera between 2010 and 2014. In response to a data request asking about the cause of the trend, Emera explained that the bad debt increases experienced by Bangor Hydro from 2010 through 2013 were due primarily to out-of-period bad debt write-offs during each of those years. Apparently, monies that should have been written off in previous years were instead written off during the period of 2010 through 2015. The Company further stated that when the annual bad debt write-off amounts are adjusted to account for these out-of-period write-offs, the adjusted

[16] Dawes Pref. Dir. Test. at 91.

totals do not reflect increasing bad debt experienced by Bangor Hydro from 2010 through 2013.[17]

Staff expressed particular concern about the high write-off amount of $2,101,271 in 2014. This figure is significantly higher than any other year in the past 10 years. When asked to explain the cause of the increase in 2014 at a technical conference, the Company stated that there were no particularly large accounts written off that year that would have driven up the bad debt expense. Again, the Company stated that it had some out-of-period write-offs in 2014, but that those write-offs did not significantly affect the write-off total. The Company acknowledged that the write-offs significantly increased in 2014 and stated that was the primary reason why the Company chose to use a five year average for the test year rather than simply use the actual 2014 bad debt write-off amount.[18]

Staff also expressed concern in the Bench Analysis that Emera apparently has not used a consistent methodology for writing off its bad debt. The Company explained that when a customer closes an account, either voluntarily or due to disconnection for non-payment, accounts “go final” 30 days after the account’s final bill due date. Any remaining accounts receivable are then forwarded to a collection agency in 45 days. Between 105 days and 120 days after the account is “finalized”, any remaining accounts receivable are written off as bad debt.[19] In light of this process, Emera should be consistently writing off bad debt between 105 and 120 days after accounts are closed and should not be “leaving” certain accounts receivable on their books. Staff noted that allowing bad debt expense to sit in accounts receivable not only artificially increases the amount of accounts receivable that appear on the Company’s books, it also distorts the Company’s bad debt write-offs in the years when these write-offs occur. It also can mask trends of increasing or decreasing bad debt write-offs, making it more difficult for the Company to properly manage its bad debt. As part of the discovery process in this case, the Company made adjustments to its 2011, 2012, 2013, 2014, and 2015 write-off amounts. The Company stated that it made these adjustments so the Commission could see on a normalized basis what the bad debt would have been had the Company written off the bad debt in the years that it should have.[20]

Based on this information, Staff recommended in the Bench Analysis that 2014 be removed from the calculation given its abnormally high level and the Company’s inability to explain the cause of the spike in write-offs that year. Staff proposed that the rate effective bad debt amount be based on a five-year average of the unadjusted bad debt amounts going back to 2010, excluding 2014. Using this methodology, the downward test year adjustment for bad debt was increased from $305,078 to $424,235.

---

[17] EXM 06-010.

[18] May 10, 2016 Tech. Conf. Tr. at 9.

[19] ODR 01-005.

[20] May 10, 2016 Tech. Conf. Tr. at 32.

In its rebuttal testimony, the Company updated its bad debt write-off information by replacing the annual bad debt write-off amounts with the adjusted write-off amounts as discussed above. As part of this process, the Company also made an adjustment of $339,015 to its 2015 bad debt amount because this amount was written off in 2016 and should have been written off in 2015 and this adjustment was not made in its original filing. Also, as a result of Staff's recommendation in the Bench Analysis to remove the 2014 total bad debt expense when computing the rate effective year expense, the Company determined that there were two large items that had an upward impact in bad debt expense in that year. First, the Company recorded a specific increase in its bad debt reserve of $83,000 associated with bad debt risk related to a single, large customer. Second, the Company recorded an amount of bad debt expense in 2014 associated with its miscellaneous accounts receivable, (non-Transmission & Distribution electric service related), at a level much greater than it had recorded in 2012, 2013 and 2015. To normalize the effect of the large bad debt expense amount for 2014, the Company computed an average of this sub-category for years 2012 through 2015, resulting in a miscellaneous accounts receivable bad debt of $81,230. This represented a $94,888 reduction from the test year expense amount.

The Company also argued in its rebuttal testimony that Staff had removed the highest year of bad debt expense (2014) in its analysis, but added in the lowest year of bad debt expense over the past six years (2010). The Company stated that its use of a multi-year average was meant to mute the effect of both years with higher expense and years with lower expense and that by removing the highest year of 2014 and adding a very low year of expense from 2010, Staff computed a rate effective expense bad debt amount that is likely understated and unfair to the Company. The Company further stated that it had made reasonable progress in addressing Staff's concerns regarding the reasons for the bad debt spike in 2014 and believed that using a five-year average from 2011 to 2015, incorporating the normalizing adjustments as proposed, is the most appropriate approach to projecting the 2017 rate effective year bad debt expense.[21]

In its Brief, the Company argues that the Commission should use 2011 through 2015 bad debt data to establish the 2017 rate year bad debt expense, as opposed to 2010 through 2015 as proposed by Staff, to be consistent with the averaging period used by the Company in its development of the rebuttal bad debt expense. Further, the Company states that Staff had accepted the normalizing adjustments proposed by the Company and given Emera's additional explanation of and adjustment for certain one-time items in the 2014 bad debt expense, the Commission should accept Emera's adjusted 2017 rate year bad debt expense amount of $1,250,553.[22]

b. Decision

The Commission shares the concerns expressed by Staff in the Bench Analysis regarding Emera's increasing trend of bad debt expense over the past five years, as

[21] Id at 50.

[22] Emera Brief at 14.

well as the spike of bad debt Emera experienced in 2014. The Company's explanation of the spike in write-offs in 2014 does not adequately explain the cause of the spike. Without sufficient explanation and justification for such an anomalous event, the Commission finds that 2014 should be removed from the bad debt expense adjustment calculation. However, we find merit in the Company's argument regarding the need to "normalize" its write-off amounts. If the Company had written off the bad debt amounts pursuant to its write-off procedure during the years the write-offs should have occurred, the write-off statistics for those years would have been higher. There is no evidence that these write-off amounts were inappropriate, only that they should have occurred in a different year. However, we would not expect the cumulative write-off amount to change over a given a period of time, only the time *when* the write-offs occurred. Considering these two factors, the Commission finds that ratepayers are not likely harmed by the Company's use of the "normalized" bad debt write-off statistics in its bad debt expense calculation. With this said, we strongly encourage the Company to follow its write-off process on a going forward basis to ensure that trends of increasing or decreasing write-offs can be quickly detected and addressed by the Company.

In light of the above findings, the Commission concludes that the bad debt expense adjustment to the test year should be ($329,841). This adjustment was calculated by taking the average annual adjusted write-off amounts from 2011 through 2015, with the 2014 write-off amount removed, and subtracting the resulting average from the $2,101,271 test year amount, to arrive at a gross reduction of $473,501 in test year expense.[23] Applying the revised 30.34% transmission allocation to the $473,501 results in a $143,660 reduction to the transmission expense and a $329,841 reduction to the test year distribution expense which results in a rate effective year bad debt expense amount of $1,771,430.

4. Non-Labor Regulatory

a. Positions Before the Commission

In its initial filing, Emera proposed a 2017 rate year non-labor regulatory expense of $556,526, an increase of $81,251 over the 2014 test year amount. This number is the sum of expenses related to the rate case ($141,630) and a cost of service study ($75,540) which have been normalized over five years, and non-rate case related regulatory expenses ($339,356). The non-rate case related regulatory expenses of $339,356 for 2017 is a forecast using a linear regression analysis of actual data from 2013, 2014, and 2015 of $74,275, $122,782, and $210,045, respectively.

Emera argues that a linear regression analysis is appropriate because three years of data for non-rate case related regulatory expenses "showed a clear upward

[23] While the Commission would prefer to have a full five year period used to "normalize" the write-off amounts, the Company only provided adjusted write-off amounts for the years 2011 through 2015 (four years with 2014 removed). Consequently, this is the period we used in our calculation.

and highly correlated trend in these costs."[24] This upward trend is attributable to "increased regulatory proceedings at the MPUC in which Emera is engaged" and "is supported by the R-Squared in the regression analysis of 97%."[25]

Staff's position, in its Bench Analysis, was that the use of a linear regression analysis is inappropriate to forecast non-rate case related regulatory expenses because the standard methodology to forecast such variable costs is normalization. Further, Staff asserted that "Emera has not explained what external factors would lead to a continued rise in non-labor regulatory expenses" to warrant a deviation from the standard of normalization. Emera's linear regression analysis would result in "non-rate case regulatory costs of $407,241 in 2018, and $475,126 in 2019, or roughly four times Emera's 2014 test year level." Staff suggested reducing Emera's rate effective year non-rate case regulatory expense from $339,356 to $148,385, which is a normalization of the costs incurred in 2013 to 2015, adjusted for inflation.

b. Decision

Although Emera does explain that the increase over 2013 to 2015 is correlated with an increase in proceedings before the MPUC, the Company does not provide sufficient detail to understand what would cause these proceedings to increase further at the rate suggested. Instead, Emera's arguments for using a linear regression analysis appear based on the position that three years of increase represents a "clear trend". The Commission concludes that three data points of an admittedly highly variable figure does not represent a clear trend without further reasoning. Likewise, an R-Squared in the regression analysis of 97% for only three data points provides little support for Emera's position. The Commission generally agrees with Staff that normalization is the more appropriate methodology by which to predict costs associated with non-rate case related regulatory expenses. Recognizing that non-labor regulatory expense has increased in recent years, given increased Commission activity, the Commission will in this case accept the 2015 known and measurable amount of $210,045 adjusted for inflation as the appropriate rate-year effective amount.

5. Storm Costs

a. Positions Before the Commission

In its initial filing, Emera estimated its 2017 storm cost expense to be $2,224,000 using a linear regression model based on 2010 to 2015 data. In the Bench Analysis, Staff opposed Emera's linear regression model and proposed using a normalization methodology based on 2010-2015 data. The rationale for Staff's approach was that storm costs are extremely variable.

[24] Emera Brief at 18.

[25] *Id.*

In its rebuttal filing, Emera agreed with Staff's assessment of the linear regression result but did not agree with Staff's six-year average of costs from 2010 to 2015. Emera stated that the analysis did not take into consideration increases for costs in labor, materials and third party contractor costs over this time period, and served to understate future projected storm costs. Emera also discussed recent storm activity stating that the increase in the number and severity of large storms over the past three-plus years has had a dramatic effect on the service restoration costs over this timeframe and using a simple average of costs dating back to 2010 is not reflective of the current environment in which the Company operates. Emera proposed to utilize a three-year average to normalize costs for 2013 to 2015, with the overall inflation rate added for 2016 and 2017. This resulted in rate effective year storm costs of $2,177,977.[26]

Emera has recognized that its storm cost adjustment methodology double-counted labor as storm related labor was also included in Emera's known and measurable payroll expense adjustment[27]. Emera notes in its brief that there was agreement with Staff that the appropriate approach is to include regular (non-overtime) storm labor in the payroll expense adjustment, remove storm overtime labor from the payroll expense adjustment and compute the storm-cost adjustment based on an average of storm overtime labor and storm non-labor costs.[28] Incorporating the impacts of this adjustment to reflect storm costs for 2013 through 2016 (using year-to-date storm costs data through August 2016) results in a normalized storm cost amount of $1,862,533.

b. Decision

Normally, we would consider a five-year normalization period for storm costs to be preferable as these costs are highly variable. Since calendar year 2016 is available and has been vetted, we find that including 2016 in the data set, as suggested by the Company is reasonable. The resulting five-year period then would be 2012 through 2016. However, in reviewing Emera's annual total costs for the period 2010 through 2016, we note that the year 2012 is almost 20% less than the next lowest cost year. Consistent with the Commission's approach to normalize bad debt costs, we will exclude 2012 as an outlier and accept a four-year normalization period in these circumstances. Removing regular labor from storm cost amounts for the period 2013 through August 2016 results in a normalized rate year amount of $1,862,533 or a $542,106 reduction to the $2,404,639 adjusted Test Year amount.

6. Medical Costs

In its original filing Emera proposed a $777,227 adjustment to test year expenses for Medical and Other Employee Related Insurance Costs which consists of four categories: medical claims, admin/other medical insurance, employee contribution and

[26] Dawes Pref. Reb. Test. at 42 – 43.

[27] Staff Hearing Exh. 14; (ODR-004-001)

[28] Staff Hearing Exh.15

other insurances.[29] In its Bench Analysis, Staff expressed concern that, overall, active employee medical costs are overstated.[30] The Company made several adjustments in its rebuttal filings, including correction of the transmission allocation factor from 12.60% to 13.35%[31] that collectively reduces the adjustment to test year expenses to $374,777. The Commission accepts the Company's revised wage allocation rate to be applied to each sub-category. Each sub-category is discussed in detail below.

a. Medical Claims

In the initial filing, the Company determined the Medical Claims adjustment amount from actual amounts for 2014 and 2015 and then applied a medical inflation rate determined by its actuaries of 7.25% for 2016 and 7% for 2017. In the Bench Analysis, Staff expressed disagreement with the Company's medical inflation rates, stating that the general inflation rate includes increases associated with medical costs. By applying an inflation factor which includes increases in medical costs to certain non-medical expenses and then applying a separate medical inflation factor to medical costs, the Company has essentially double counted the effect of medical inflation on costs. Staff recognized, however, that medical costs have increased at a rate higher than the overall inflation rate and proposed two alternate methods for accounting for this.

The first is to apply the general inflation rate to all applicable costs, including medical costs. While the actual impact of inflation on individual cost items will vary, this methodology is intended to produce a result which is reflective of the impact of inflation on all applicable costs on an overall basis. The second suggested approach is to remove the medical cost component from the general inflation rate and apply the revised lower rate to general expenses and apply a separate medical inflation rate based on the U.S. Government's annual projections for Medicaid and Medicare spending of 4.9% for 2016 and 5.4% for 2017 to medical costs.[32]

The Company made several adjustments in its rebuttal filing. First, Emera proposes a medical claims expense based on 2016 amounts estimated using the projected 2016 amount of its consulting healthcare actuary, Mercer. Emera then determines 2017 costs by increasing 2016 by a medical inflation rate of 6.57%. This medical inflation rate is calculated as an average of Mercer's estimate of 7.3%, another unidentified consulting actuary's estimate of 7.0%, and Staff's medical inflation rate of 5.4%, as indicated in the Bench Analysis.[33]

---

[29] Dawes Pref. Dir. Test. at 94-95 and Exh. D-75

[30] Id. at 39-42

[31] Dawes Pref. Reb. Test. Pref.at 52-54; Emera Brief Appendix 2, Exh. D-75.

[32] Bench Analysis at 39-41.

[33] Dawes Pref. Reb. Test. at 52-53.

In *Investigation of Central Maine Power Company, Company's Revenue Requirements and Rate Design (Phase II)*, Docket No. 97-580, Order at 27 (January 19, 2000), the Commission found that the application of the general inflation to medical costs was appropriate since the generalized overall cost trend rate captures increases in costs of specific components such as medical costs. Applying a separate inflation rate only to costs that are growing at a rate faster than the overall inflation rate, but applying the overall rate to other costs, distorts the overall inflationary impact on the revenue requirement. As stated in the Docket 97-580 Order: "even if one can point to specific costs that are increasing at a rate higher than inflation, it is important to consider that there are also costs that are increasing a [sic] rate less than inflation. Hence, removing cost elements to apply a separate cost escalation misstates the overall level of attrition." *Id.* Since the Company has not put forth a general inflation rate which removes the impact of medical inflation, the Commission will accept the Staff's proposal to use the known 2015 amount and increase that amount by the general inflation rate for 2016 and 2017.

b. Administrative/Other Costs

With regard to Administrative/Other Medical Insurance costs, the Company initially proposed basing its administrative costs on its 2016 budgeted amount and applied the 2017 medical inflation rate of 7% to determine 2017 costs. In the Bench Analysis, the Staff noted that the Company estimated administrative/other medical insurance costs for 2016 that are 41% above 2015 levels and that it did not believe that this increase was substantiated. Staff recommended calculating rate year costs based on the normalized level of 2012-2015 and then adjusting that amount by the general inflation for 2016 and 2017.[34] In its Rebuttal filing, Emera noted that its 2016 expenses would be $541,954 based on analyzing "the level of these actual costs in 2016 by reviewing actual expense amounts for administrative charges from Anthem and stop loss insurance."[35] Emera proposed applying the average medical inflation rate of 6.57% discussed above to the 2016 projection to estimate the 2017 costs.

The Commission finds that the Company's proposed 2016 amount for administrative/other insurance costs constitutes a reasonable known and measurable change. However, the Commission agrees with Staff's recommendation that the 2017 amount should be estimated by applying the general inflation rate as explained above.

c. Employee Contributions

Emera determined Employee Contributions for 2017 using the known weighted average increase of 5.09% from the 2016 level. Staff accepted the Company's adjustment as a known and measurable change. The Commission also accepts these costs as known and measurable amounts.

[34] Bench Analysis at 42.

[35] Dawes Pref. Reb. Test. at 53.

d. Other Insurances

In its initial filing, the Company calculated Other Insurance costs by using the Company's budgeted 2016 amount and applying the 2017 medical inflation rate of 7% to determine the 2017 amount. In its Bench Analysis, Staff recommended that this category has no connection to medical inflation and the appropriate method for calculating the rate effective year amount is to base it on the 2015 level adjusted by the 2016 and 2017 overall inflation rates.

In its rebuttal filing, the Company amended its methodology and projected its 2016 expense based on the actual monthly invoiced cost. Since the monthly charge per dollar of payroll is fixed for 2017, the Company applied the 1% wage increase from the Payroll Expense calculation to the 2016 amount to calculate the 2017 costs.[36] The Commission finds that the Company's revised proposed 2017 Other Insurance costs projection to be reasonable as it based on known factors adjusted for reasonable wage growth.

7. Swan's Island Acquisition Revenue Requirements Adjustment

a. Positions

Subsequent to the filing of the current case, Emera and Swan's Island Electric Cooperative (SIEC) filed a joint petition with the Commission requesting authorization for Emera to acquire SIEC. *Requests To Sell Assets, Abandon Service and to Transfer Service Territory Pertaining To Swans Island/Emera Maine*, Docket No. 2016-000209, Joint Petition (Sept. 1, 2016). As part of its rebuttal testimony, Emera proposed a "known and measurable" change resulting from the acquisition. After various revisions, the amount of this adjustment has changed from $492,000 to approximately $386,000. Emera notes in its brief that as an alternative to recovery of the SIEC acquisition costs in this rate case, it has been suggested that the rate impact could be addressed by means of an accounting order in Docket No. 2016-00209. Emera states that it does not object to handling the SIEC revenue requirement in this manner so long as an accounting order is issued prior to the issuance of a final order approving the rate change. Otherwise, Emera is entitled in this case to a $386,000 adjustment to revenue requirements associated with the acquisition in this case.[37]

b. Decision

As review and approval of Emera's acquisition of SIEC has not been finalized in Docket No. 2016-00209 there is no basis to include the requested SIEC adjustment in revenue requirements at this time. The Commission will consider Emera Maine's request for the issuance of an accounting order in Docket No. 2016-00209 as it considers the request for approval in that case.

[36] Dawes Pref. Reb. Test. at 54.

[37] Id.

8. Management Audit Costs

a. Emera Proposal

Pursuant to the Commission's April 13, 2016 Order Initiating Management Audit, a management audit to determine whether Emera Maine's operations were being conducted in an effective, prudent and efficient manner was conducted as part of this proceeding. Emera has proposed a five-year levelized amortization of the estimated total incremental management audit costs of $425,000. Emera indicates that this amount includes the $345,000 in fees Emera will have paid to Liberty and its incremental costs of responding to the audit.[38] In Appendix 2 to its Brief, Emera calculated total costs over the five-year recovery period, including the impact of Accumulated Deferred Income Tax (ADIT) and carrying charges calculated at its proposed WACC, at $565,633 resulting in a levelized revenue requirement effect of $113,127.

b. Decision

Emera proposes to include $80,000 in costs that the Company incurred in responding to the audit. 35-A M.R.S. §113(3) states that: "the full cost of the management audit shall be recovered from ratepayers." Thus, the statute allows for recovery of the costs of the management audit in rates and not other costs incurred by the utility related to the audit. Additionally, Emera has not provided any support that Commission policy would allow it recovery of these types of costs. Finally, the record in this proceeding does not provide any documentation detailing Emera's additional costs.

Therefore, the Commission will allow recovery of only the $345,000 specifically incurred for the Liberty audit costs.[39] The Commission agrees with the five-year recovery period proposed by Emera. Emera is authorized to recover these costs with carrying costs calculated using the WACC approved in this Order and incorporating the impact of ADIT.

9. Customer Late Payment Revenue

a. Positions Before the Commission

In the 2014 test year, the Company received $385,004 in Customer Late Payment Fees which serves as an offset to expense and a reduction to revenue requirements. In 2015, the amount of Customer Late Payment Fees increased to $565,223. The Company, however, did not increase the test year amount of late payment fee revenues for a known and measurable change.

---

[38] Emera Brief at 21.

[39] The $345,000 claimed by Emera's maximum amount allowed under the Commission's contract with Liberty. At this point, it is not known what the final billed amount will be. The amount allowed for recovery will be based on this amount.

The Company stated that the increase in revenues was due to a cessation of field collection activities which resulted in late payment fees that the Company did not expect to continue in the future. The Company proposed to account for the 2015 anomaly by taking the 2015 monthly average of late payment fees before CIS implementation, ($34,260), annualizing that amount and then trending that amount by the average annual increase in late payment fees between 2013 and 2015 (as adjusted). This methodology results in a rate effective late payment fee amount of $467,524.

Staff noted in the Bench Analysis that the 2016 data provided by the Company did not show late payment revenues going down as claimed by the Company. Specifically the monthly average for the first four months was $62,824 which translated to an annual amount of $753,885. Staff proposed to use this amount as the rate effective year.

In Rebuttal, Emera noted that the Company has reported to the MPUC Consumer Assistance and Safety Division that it was working on correcting an issue involving the compounding of late payment fees which resulted in overcharges to customers. Thus, as a result of this issue, the Company argued that the level of late payment fees noted above for 2016 are overstated and not likely to occur during the 2017 rate effective period. Therefore, the Company did not agree with Staff's proposed decrease in the revenue requirement of $286,361.[40]

b. Decision

Table 2 below presents the monthly late payment revenue during the first seven months of 2016.

Table 2 [41]

	Customer Late Fees
January 2016	56,560
February	66,388
March	71,473
April	56,874
May	36,237
June	52,535
July	41,374
Total	381,440

[40] Dawes Pref. Reb. Test. at 59.

[41] See ODR 04-14.

The 2016 data shows what appears to be a decreasing trend which supports the Company's position on this issue. The Commission therefore, rejects the Staff's proposed late payment revenue adjustment and accepts the proposed rate effectiveyear late revenue of $467,524.

10. Regulatory Assessment Costs

a. Positions Before the Commission

In its Initial filing, the Company proposed a Regulatory Assessment adjustment of $231,165. The Company applied inflationary increases for 2016 and 2017 in the amount of 1.94% and 2.35% to arrive at a total estimated 2017 expense level of$1,556,843. In his initial testimony, OPA witness Mr. Mugrace removed the effects of inflationary adjustments related to the Company's proposed 2016 and 2017 estimated increase, arguing that these types of inflationary costs are not reflective of actual costs expected to be incurred.[42] Mr. Mugrace argued that the assessments are set pursuant to the legislative process and until firm regulatory assessment values are known, the removal of inflationary adjustments are required. Mr. Mugrace recommended an increase of $161,471 or a reduction of $64,694 from the Company's position.

In its Rebuttal testimony, the Company proposed a Regulatory Assessment adjustment of $117,646. The Company used a three-year average of the assessment expense for 2014-2016 to arrive at a level of $1,410,697, and added an inflation rate of 2.06% for a total estimated cost of $1,443,324, or a $117,646 increase over test year levels of $1,325,678.

In his Surrebuttal testimony, Mr. Mugrace accepted the Company's use of a three-year average to compute the regulatory assessment (2014-2016) in the amount of $1,410,697, but did not accept the inflation rate of 2.06%. He reiterated his reasoning stating that until firm regulatory assessment values are known, the effect of inflation should be removed from the Company's performance expense. Mr. Mugrace removed $28,933 of cost related to inflation.[43]

In its Brief, the Company argues that, similar to other expenses, the regulatory assessment is subject to inflationary pressures.

b. Decision

The Commission agrees with the Company that costs addressing the regulatory assessment are subject to inflationary pressure and therefore, although such costs are set by the Legislature, it is reasonable apply an inflation factor to the 2014-2016 normalized level. Applying the inflation factor adopted for 2017 results in a rate effective year adjustment of $26,803 to the $1,410,497 normalized level.

[42] Mugrace Pref. Dir. Test. at 35.

[43] Mugrace Surrebuttal at 17.

D. Sales Forecast

Emera Maine's revenue forecast methodology appears consistent with past years' forecasts. For residential and commercial/medium class sales, the Company used three econometric models for each district, BHD and MPD. For their large, special contract and lighting customers, the Company developed independent non-econometric forecasts.

Table 3 below, provides a summary of the Company's projections. In general, the forecast indicates an overall decrease (-1.61%) in kWh consumption, mostly as a result of the loss of two large mills in the BHD. Absent the loss of the mills, the forecasted compound annual growth rate would have been 0.14%.

Table 3 [44]

EM					**Growth Rate**
Customer / Rate Classes	2014A	2015A	2016F	2017F	2015-2017
Residential	806,838,912	802,017,488	800,081,884	802,560,077	0.03%
Commercial	255,973,258	253,745,057	254,813,355	253,291,414	-0.09%
Medium	532,651,814	523,199,086	528,009,737	529,607,324	0.61%
Lighting	12,070,796	11,871,742	11,871,742	11,871,742	0.00%
Large & Special Contract	430,176,194	426,388,460	356,238,902	355,517,925	-8.69%
Total Billed kWh Sales	2,037,710,974	2,017,221,834	1,951,015,621	1,952,848,482	-1.61%
BHD					**Growth Rate**
Customer / Rate Classes	2014A	2015A	2016F	2017F	2015-2017
Residential	616,579,116	617,294,891	613,372,930	615,904,863	-0.11%
Commercial	154,872,929	156,472,526	158,035,040	159,480,827	0.96%
Medium	442,552,271	441,358,527	445,908,306	450,017,905	0.98%
Lighting	8,641,113	8,434,261	8,434,261	8,434,261	0.00%
Large & Special Contract	296,170,106	282,177,232	212,086,174	211,365,197	-13.45%
Total Billed kWh Sales	1,518,815,535	1,505,737,438	1,437,836,712	1,445,203,054	-2.03%
MPD					**Growth Rate**
Customer / Rate Classes	2014A	2015A	2016F	2017F	2015-2017
Residential	190,259,796	184,722,597	186,708,954	186,655,214	0.52%
Commercial	101,100,329	97,272,531	96,778,315	93,810,587	-1.80%
Medium	90,099,543	81,840,559	82,101,431	79,589,419	-1.38%
Street & Area Lighting	3,429,683	3,437,481	3,437,481	3,437,481	0.00%
Large	134,006,088	144,211,228	144,152,728	144,152,728	-0.02%
Total Billed kWh Sales	518,895,439	511,484,396	513,178,909	507,645,429	-0.38%

[44] Olesniewicz Testimony at TO-10.

Neither the Staff nor the OPA voiced any opposition to using the forecasts presented above. The Commission finds the Company's forecast to be reasonable and will use such forecasts to set rate effective year rates.

IV. PRUDENCE STANDARD IN MAINE

The prudence standard in Maine has been defined by the Commission as the "course of conduct that a capably managed utility would have followed in light of existing and reasonably knowable circumstances." *Public Utilities Commission, Investigation of Seabrook Involvements by Maine Utilities,* Docket No. 84-113 (Phase II) Order at 12 (May 28, 1985) (hereinafter "S*eabrook*"). As discussed in the *Seabrook* case, the concept of imprudence in utility regulation has its origins in the "efficient investment" theory, whereby regulation, acting as a surrogate for competition, should charge "inefficiency" to stockholders. Thus, the "prudence" standard is really the Commission's elaboration of the statutory directive in 35-A M.R.S. § 301 (4) that "in determining just and reasonable rates, the Commission: . . . [m]ay consider whether the utility is operating as efficiently as possible and is utilizing sound management practices." *Maine Public Utilities Commission, Investigation into the Annual Reconciliation of CMP's Stranded Cost Revenue Requirements and Costs,* Docket No. 2006-200, Order at 9, (March 24, 2008).

In *Public Utilities Commission, Investigation of Central Maine Power Company's Credit and Collection Policies and Standard Offer Uncollectible Balances,* Docket No. 2010-00327, Order at 14 (Jan. 25, 2013) the Commission explained:

> The fundamental principle of 35-A M.R.S.A.§301 and our previous holdings is that ratepayers are not to be charged for imprudently incurred costs. This principle follows logically from a fundamental function of utility regulation, which is to approximate cost controlling pressure that competition exerts in a monopoly environment. Under competition, imprudence cannot be passed on to the consumer whether the imprudent behavior is by the retailing firm, by a supplier firm, or by a joint venture of which the retail firm is a part.

The Commission has set forth the following factors which should be considered in determining whether the prudence standard has been met:

1. Senior utility executives are expected to possess a high degree of financial and technical expertise.

2. While the prevailing practice of the utility industry is relevant, it is not determinative. The decisions of utility executives must also be reasonable when viewed against the decisions and courses of conduct of other corporations that make investment decisions of a comparable size and complexity.

3. The size and nature of the undertaking being reviewed must also be considered.

4. Review of utility decisions should consider the utility's legal obligation to provide the safe, reasonable, and adequate service at the lowest possible cost over time throughout its service territory and to operate "as efficiently as possible" using "sound management practices." 35 M.R.S. § 51 [now Section 301]. A utility is not free to tailor its decisions to profit maximization to the degree that an unregulated company would.

5. A review of prudency requires an examination not only of the initial investment decision but also of the continuing action of the utilities in response to changing circumstances.

6. If a utility has selected from among several reasonable courses of action, one of which turns out badly, the utility's decision was not imprudent.

7. The utility's course of conduct must be reviewed in light of existing facts and circumstances that either were known or knowable through an effort consistent with the size of the risk at the time decisions were made and should not be based on hindsight.

Seabrook, supra at 12.

If imprudence is found, the Commission must determine if the imprudent action caused harm to ratepayers. If harm is found, then the injury or damage needs to be quantified. *Seabrook, supra*. at 13-14.

Under the provisions of 35-A M.R.S. § 1314, in all original proceedings where a utility is seeking to increase its rates or charges, the burden of proof is on the utility to show that the increase is just and reasonable. The Law Court has held that "in the absence of a showing of inefficiency or improvidence" a court will not substitute its judgment for the judgment of utility managers. *Central Maine Power Co. v. Public Utilities Commission,* 153 Me. 228, 243 (1957). This requirement establishes the need for some showing sufficient to meet a burden of production. Once, however, a party or the Commission Staff has made some showing of inefficiency or imprudence to raise the issue in the proceeding in a sufficiently specific way, the party or Staff has met its burden of production, and the burden then shifts back to the utility to demonstrate that its actions were prudent. *Central Maine Power Company, Application for Fuel Cost Adjustment Pursuant to Chapter 34 and Establishment of Short-Term Energy Only Rates for Small Power Producers Less Than 1 MW Pursuant to Chapter 36 (Investigation of QF Contracts).* Docket No. 92-102, Order at 13 (Oct. 28, 1993) (hereinafter *CMP Investigation of QF Contracts).*

V. ACADIA SUBSTATION

A. <u>Background</u>

In 2007, Emera Maine conducted an in-depth study of the system needs and potential solutions in the Mount Desert Island (MDI) area (MDI System Study). Some of these solutions have already been completed and put into rates, including a second

source to MDI and a new substation in Somesville. A new substation and second transmission line into Bar Harbor were identified in the MDI Study to address reliability weaknesses in the area.[45] The Company is now seeking to put into rates the distribution portion of a new substation in Bar Harbor (Acadia Substation) which would be put into service this year. The total cost of the substation is estimated to be $9.5 million, of which $7.4 million is estimated to be the distribution portion.

The existing substation is located in downtown Bar Harbor in an historic building with no room for expansion. Furthermore, according to the Company, the existing equipment is over 50 years old and approaching the end of its useful life. The Company identified several additional reasons supporting its decision to build a new substation including: location of the substation in the electric geographic center of the load; allowance for additional distribution feeders as growth requires; the ability to provide the area to be fed from two lines for reliability and maintenance purposes and; to increase the distribution voltage to 12.5 kV from 4.16 kV. [46]

Emera Maine purchased property on Woodbury Road in Bar Harbor for the new substation and planned to construct it using traditional open-air design. On May 15, 2014 a ten-person complaint concerning the proposed Acadia Substation was filed with the Commission. *10 Person Complaint Regarding Proposed Acadia Substation Pertaining to Emera Maine,* Docket No. 2014-00141, (hereinafter *Acadia 10 Person Complaint*). As a result of this complaint, Emera Maine stopped work on the project and formed a community advisory committee to re-examine the justification for a new substation as well as its location and design. After a nine-month process, a new location and design for the substation were identified that were supported by the advisory committee, the Town of Bar Harbor, and other members of the local community. The new Prospect Avenue location had far fewer residences in close proximity than the originally-proposed Woodbury Road site. The new design was for a compact substation with an exterior decorative façade, walls and vegetation. As redesigned, the Acadia Substation would resemble a wood stable which, according to the Company, would better conform to the historic nature of the neighborhood. The new design and location were estimated to result in a cost increase of as much as $5 million compared to the originally proposed substation at Woodbury Road.

On October 12, 2015, the Company and the lead complainant informed the Commission of their joint position that the new design and location at Prospect Road was reasonable and, therefore, requested that the Commission dismiss the ten-person complaint. In its Order dismissing the complaint, the Commission found that Emera Maine had removed the cause of the complaint, but noted:

> The reasonableness and prudency of the proposed substation design, location and cost is not before the Commission. Therefore, the Commission makes no determination on the merits of the agreed-upon

[45] Sloan Dir. Test. Exhibit SS-1.

[46] *Id.*

solution in the context of this 10-person complaint. Such issues would be properly addressed in the context of a ratemaking proceeding.

Order Dismissing Complaint at 3 (Dec. 23, 2015) *Acadia 10 Person Complaint*.

In this case, the Company has proposed to put into rates $7.4 million associated with the Acadia Substation, which represents the distribution portion of the total cost of the substation, which it estimates to be $9.5 million. In its June 2, 2016 Bench Analysis, the Staff raised the issue of whether the incremental costs of the Acadia Substation that the Company would incur to address local aesthetic concerns should be borne by the general body of Emera Maine's customers based on the Commission's decision in *Laurie Downs, et al Central Maine Power Company, Request for Commission Investigation Into the New Central Maine Power Company Transmission Line Proposal for Eliot, Kittery and York,* Docket No. 2002-00665, Order Approving Stipulation (Aug. 14, 2003) (hereinafter *Downs*) and invited comment from the Company and the OPA on this issue in their rebuttal filings.

B. Positions of the Parties

1. OPA[47]

In its Brief, the OPA argues that Emera Maine has not met its burden of proof that the additional costs of the Acadia Substation relative to the original design and location at Woodbury Avenue is a just and reasonable cost. Thus, according to the OPA, the additional cost of $4.5 million should not be allowed in rates. This results in an amount in distribution rates of $4 million, rather than the $7.4 million being sought by the Company.

As noted by the OPA, Emera had designed and permitted the Woodbury Road site before local opposition came forward.[48] Emera then formed an advisory committee to address local aesthetic concerns and, ultimately, abandoned the Woodbury Road location, choosing instead to develop a compact and enclosed substation at Prospect Avenue for an additional cost of $4.5 million. The OPA notes further that the decorative façade was added to address the concerns of just a few nearby residents. Throughout this process, as noted by the OPA, Emera did not seek to have any of these additional costs paid for by the Town of Bar Harbor or any local citizens.

In response to the Company's arguments that the originally proposed design and location for the Acadia Substation faced legal challenges that presented risks to its development, the OPA argued that such legal challenges did not, in fact, justify the Company's actions.

[47] The OPA did not file testimony on this issue, but, on September 8, 2016, filed Comments of the Office of the Public Advocate on the Acadia Substation.

[48] Sloan Pre. Dir. Testimony, Exhibit SS-1.

First, the OPA notes that the citizen appeal of the Company's permit for the Woodbury Road project was not compelling as a legal matter, noting that the appeal was filed almost 180 days after the expiration of the 30-day appeal period. OPA notes, further, that the appeal was denied by the Bar Harbor Board of Appeals, and the denial was affirmed in Superior Court. The landowners then took the matter to the Law Court, where it was pending and then withdrawn after Emera agreed to the new design and location at Prospect Avenue. Second, the OPA notes that the Company failed to use the leverage it had by virtue of the valid permit at Woodbury Road to push back during the ten-person complaint process. Finally, the OPA disputes the Company's argument that efforts to change Bar Harbor's land use ordinance were a threat to the Woodbury Road project, noting that its permit would have been grandfathered under the ordinance in effect at the time the permit was issued.

The OPA also argues that the development of the Acadia Substation fails the *Downs* standard. The *Downs* case was a ten-person complaint regarding a Central Maine Power (CMP) transmission line in the York area. That case, which was resolved by stipulation, provided that a new transmission line would cross the York River by underground cable and cable attached to the underside of the bridge rather than using standard overhead construction. The settlement provided that the incremental costs of the York River crossing, which were estimated to be approximately $1 million, would be borne by all CMP ratepayers.[49] The Stipulation also provided that, to the extent the Town of York requested further undergrounding, it would be at the Town's expense.[50] In approving the Stipulation, the Commission found that the treatment of the incremental costs for the York River crossing was reasonable because it provided for a "virtually invisible" river crossing along the first few miles of the Maine Turnpike, thus, furthering the larger State interest in tourism.

The OPA notes that the *Downs* Order draws an important distinction between statewide and local concerns about the aesthetics of utility infrastructure. The OPA argues that, in contrast to the York River crossing, the location and design of the Acadia Substation does not have a significant effect on state tourism. Moreover, the cost increase associated with the accommodations made for the Acadia Substation ($5 million, or 90%) is much greater than the cost increase associated with the accommodations made for the York River crossing ($1 million, or less than 10%)

2. <u>Emera Maine</u>

Emera Maine argues that all of the costs of the Acadia Substation are prudent and, therefore, the entire amount of the distribution component, $7.4 million, should be included in rates in this proceeding. According to the Company, the need for a new substation in Bar Harbor for reliability reasons was clear, and it would not have been prudent to risk delays in construction caused by litigation associated with the various legal challenges that had been raised. The Company notes that the opposition to the

[49] *Downs,* supra at 1.

[50] *Id*. at 4.

Woodbury Road project was significant, and involved concerns that included noise, electromagnetic fields, public safety, and aesthetics. The Company notes that the ten-person complaint was signed by nearly 50 persons, and that the case was before the Commission for more than one and a half years.[51] Given the broad local support for the Prospect Avenue location and design, Emera Maine decided to move forward with that version of the project so that it could provide safe, adequate and reliable service in a reasonable timeframe.

Furthermore, Emera argues it had no duty to seek contributions for any cost increases associated with the design and location changes arguing that there is no support for such an approach in Maine law or Commission precedent. The Company notes that the Commission could not order municipalities or litigious neighbors to compensate utilities for incremental costs they would incur to address local concerns, and, although there is a narrow statutory provision that allows utilities to seek contributions from municipalities for accommodations made in designated historic districts (35-A M.R.S. § 2312), this provision is not applicable to the Acadia Substation.

The Company also articulates procedural concerns about how the Acadia Substation issues have been raised in this proceeding, including concerns about fairness and due process given that there is no clearly-established Commission policy regarding the treatment of incremental costs incurred to accommodate local concerns.

With respect to the *Downs* standard, the Company notes that that case was resolved by a stipulation that explicitly provides that, as such, it "shall not constitute precedent as to any matter of law or fact." Downs, Supra. at Stipulation 97. Notwithstanding the fact that the *Downs* Order is not precedential, Emera Maine argues that the scenery and aesthetics in Bar Harbor, like York, are important to tourism and, thus to the State's economy.

C. Discussion and Decision

As noted above, Emera Maine had plans and a permit from the Town of Bar Harbor to develop an open-air substation at the Woodbury Road site for an estimated cost of $5.0 million. After local residents filed a ten-person complaint with the Commission and an appeal of the town permit was filed with the Bar Harbor Board of Appeals which was then appealed to the Superior Court, and then ultimately to the Maine Law Court, Emera Maine engaged in a collaborative process with a group of local residents and other members of the community. This process resulted in Emera Maine's decision to redesign and relocate the substation to a compact switchgear design with a decorative façade at the Prospect Avenue site for an estimated cost of $9.5 million.

[51] It appears that much of this one and a half year period was spent in discussions about alternative substation designs and locations between Emera Maine and the Advisory Committee. *10 Person Complaint, Supra*. at 2.

At issue in this proceeding is not whether a new substation was needed in Bar Harbor for reliability; that is not in dispute. Rather, the issues here are: (1) whether the incremental costs associated with the design and location changes for the Acadia Substation that the Company agreed to were prudently incurred; and (2) whether all, or some portion, of the incremental costs should have been "localized", or whether the Company should have at least attempted to do so.

The Commission acknowledges the difficulties that the Company faced in its attempts to site a new substation in the Town of Bar Harbor. Substations are typically not pleasing to the eye and it is not surprising that any given group of residents and/or businesses would object to having one in the vicinity of their homes or businesses. However, in this case the Commission concludes that Emera Maine should have placed a higher priority on minimizing the costs needed to address local concerns and should have at least attempted to obtain some level of financial contribution from the local community for cost increases incurred on the local community's behalf. Stated another way, although the Company successfully addressed the interests of certain customers in Bar Harbor, it appears to have overlooked the interests of all of its other customers from whom it now seeks to recover the costs of the Acadia Substation.

With respect to the legal challenges facing the Company at the time, the Commission agrees with the OPA that there appears to have been no significant threat to the originally proposed project at Woodbury Road due to the appeal of the permit. As noted by the OPA, the appeal was not timely (late by almost 180 days after the 30 day appeal period had expired), and the permit had been upheld by the Bar Harbor Board of Appeals and the Superior Court.[52] With respect to efforts to change Bar Harbor's land use ordinance, the Company's permit for the Woodbury Road project may have been grandfathered under the ordinance at the time it was issued, as asserted by the OPA; however, there is no evidence in the record to support the outcome of an ordinance change one way or the other.

With respect to the *Downs* Standard, the Commission agrees with Emera Maine that the *Downs* stipulation is not precedential as a legal matter. However, in the Order Approving the Stipulation, the Commission articulated certain considerations that are instructive and relevant to the costs of the Acadia Substation. The first relates to the magnitude of the incremental costs a utility should agree to incur to address local concerns. Specifically, in the *Downs* Order, the Commission stated that it is reasonable for a utility (CMP, in that case) to:

> … consider and, where practicable, implement measures to minimize significant adverse abutter, environmental and community impacts that might otherwise occur. We wish to emphasize, however, that the term "practicable" ***<u>should include a consideration of the costs of the mitigation.</u>*** (Emphasis added.)

Downs, supra. at 6.

[52] *See* OPA 04.

In that case, the Commission found that the estimated incremental cost for the York River crossing, which as noted above were $1.0 million, or less than 10% of the project, were reasonable but required CMP to inform the Commission if its estimates increased by more than 15% so that the Commission could determine whether further consideration was warranted. As noted above, the costs of redesigning and relocating the Acadia Substation increased its cost from $5 million to $9.5 million, which is an increase of 90%.

The second relevant consideration articulated in *Downs* Order relates to whether incremental costs are incurred to address local concerns as opposed to the larger interests of the State as a whole. In the *Downs* Oder, the Commission reasoned that the provision of the Stipulation that provided that the incremental costs of the York River crossing would be borne by all CMP ratepayers was in the public interest because of the benefits to tourism and the economy state-wide of a "virtually invisible" river crossing along the first few miles of the Maine Turnpike. The Commission noted that, in contrast, the Stipulation would require any costs associated with accommodations made along the York Spur Road to be borne by the Town of York. The Commission found this to be reasonable given that aesthetics along the York Spur Road were less likely to be of concern to the State as a whole. In the case of the Acadia Substation, although the Commission acknowledges the importance of the Bar Harbor and MDI areas to the State's tourism industry, the Commission concludes that the beneficiaries of the redesign and relocation of the substation are primarily the residences and businesses in the local area rather than across the entire State.

In this case, it appears that Emera Maine put aside the interests of the vast majority of its customers in its efforts to satisfy the concerns of a small group of its customers in Bar Harbor. There is no evidence in the record that the Company either: (1) considered the magnitude of the incremental costs; or (2) attempted to get some financial support from the local community. Had the Company done either or both of these things, for example, pushed back against, or sought a contribution for, the decorative façade, a finding that the incremental costs were prudent and should be borne by all of Emera Maine's customers may have been supportable. However, as noted, the record does not demonstrate that Emera Maine did either. Therefore, the Commission finds that the incremental costs of the Acadia Substation relative to the original design and location at Woodbury Road were not reasonably or prudently incurred, and the distribution component of which is $3.4 million, may not be included in rates.

The Commission recognizes, as the Company argues, that this issue has not been presented in a traditional manner in that no party filed testimony directly contesting the prudence of the Company's Acadia Substation investment. The Commission disagrees with the suggestion, however, that the Company did not have adequate notice that the prudence of the Acadia Substation would be at issue in the case or that sufficient facts were not raised in the proceeding to put the matter in play and thus require the Company to meet its burden of proof.

In our decision in the *Acadia 10 Person Complaint* case, the Commission specifically stated that in approving the stipulation in that case and dismissing the ten-person complaint, that the Commission made no determination on the merits of the agreed-upon solution and that the reasonableness and prudence of the proposed substation design, location and cost would be addressed in the context of a ratemaking proceeding. Indeed, in apparent response to this language, the Company's direct case included a very lengthy piece of testimony to support its investment decision.[53] The Commission's Staff then requested the Company to address the question of how the Company's investment met the *Downs* standard as part of its rebuttal case. In response to this request, the Company filed additional testimony as part of its rebuttal case on the issue.[54] As part of its surrebuttal filing, the OPA then submitted comments which notified the Company that it intended to contest the reasonableness of the Company's Acadia Substation investment. Finally, the Company, then at the hearing stage, was provided with an opportunity to call Mr. Sloan as a witness and conduct redirect examination based on Mr. Sloan's statements at the technical conferences regarding the Acadia investment. Thus, while the procedure concerning this issue in this case was somewhat unusual, the Commission is satisfied that the Company had adequate notice that the question of the reasonableness of its investment would be at issue.

Although the OPA did not provide testimony on the Acadia Substation issue, the Company's own response to OPA 04-06 demonstrates the strength of its legal position in pursuing the Woodbury Road site. This evidence was sufficient to meet any burden that other parties had to bring the issue into play and to require that the Company meet its burden of proof under 35-A M.R.S. § 1314 that the incremental costs incurred to site the Acadia substation at Prospect Avenue were prudent based on the evidence in the record in the case. We find that the Company has not met its burden here. Therefore, the Commission will only allow the amount associated with the original Woodbury Road design in rates at this time. Given the unique nature of the development of the issue and the significance of the disallowance, in holding so, the Commission does not foreclose the possibility of a Company request that the Commission revisit this issue in a follow-up investigation to be initiated by the Company.[55]

VI. MANAGEMENT AUDIT ISSUES

A. Overview

In the Commission's Order Initiating Management Audit of April 13, 2016, the Commission concluded that it was appropriate to conduct a management audit of the Company, pursuant to the provisions of 35-A M.R.S. § 113, in order to determine

---

[53] Sloan Direct Test. Exh. ss-1.

[54] Sloan Reb. Test. at 2-11.

[55] Possible vehicles for such an investigation might include the provisions of 35-A M.R.S. § 1302 or § 1321.

whether Emera Maine's operations were being conducted in an effective, prudent and efficient manner and whether:

1) Emera Maine acted prudently with regards to the management acquisition, and implementation of the Company's new customer billing system (CIS);

2) The Company's credit and collections and customer service functions were being operated in an effective, prudent and efficient manner; and

3) Emera Maine's management and operation of its transmission and distribution system was being done in an effective, prudent, and efficient manner and in a manner that ensures that its customers receive reliable service in accordance with reasonable utility management practices.

Following the April 13, 2016 Order, the Commission issued an RFP pursuant to state contracting requirements and selected Liberty Consulting Group from the roster of RFP respondents. Liberty conducted its review over a concentrated, six-week period designed to produce a final report within the schedule established by the Hearing Examiners. The review was conducted through a series of coordinated:

- Data requests seeking written responses and data sets

- Interviews conducted according to established agendas, but incorporating the flexibility to address those topics we identified as useful based on the dialogue occurring at the interview sessions

- On-site examinations and discussions with management employees at central work locations, such as customer service centers and T&D operations and dispatch facilities

- Field inspections of T&D facilities incorporating locations identified as "trouble spots," recent work locations, and some randomly chosen while in transit in the field.

Liberty stated that these techniques comprise standard activities for the type of audit ordered by the Commission. In its Report, Liberty noted that usually this type of audit would have been conducted over a much longer period. However, with the cooperation of the Company, Liberty was able to complete the project within the allotted timeframe.[56]

The Liberty team (also referred to as "the Auditors") assigned to the project consisted of the following four individuals: Mark Lautenschlager, Christine Kozlosky, Rose Minton, and John Antonuk. Mr. Lautenschlager led the review of T&D operations; Ms. Kozlosky led the customer service review; and Rose Minton and John Antonuk led the CIS review. The project was managed by Mr. Antonuk who is a founder and

[56] Liberty Report at I-1.

President of Liberty. Liberty's Management Audit Report (the Liberty Report or the Report) was submitted to the Commission on August 8, 2016. The Report was broken into three distinct sections: T&D System Operations and Maintenance; Customer Service; and Implementation of the New CIS. We address the findings and conclusions along with the responses to the Report which were filed by the Company and the OPA below.

B. Reliability

1. Positions Before The Commission

As this part of the Audit, Liberty examined how Emera Maine operates, maintains, and applies resources to its T&D systems; how it plans, budgets, prioritizes, and implements capital projects, in particular its reliability improvement projects; and whether the Company's T&D practices are reasonable and prudent. Liberty's work included visual examinations of line and substation equipment and vegetation conditions, and recent projects, including the new Operations Center, the Eastern Maine Medical Center Substation, and the integration of the GIS, PowerOn, and AVL (automatic vehicle location) of the North Operating Regions along with the South Operating Region.

As a general matter, Liberty found Emera Maine's practices with regards to the operation of its T&D system were reasonable. Liberty raised two issues/concerns in its Report which are noteworthy and which we address here. First, Liberty noted Emera Maine's relatively poor reliability statistics and the Company's apparent willingness to accept these historical low levels of performance. As an associated concern, Liberty noted the fact that management failed to complete its scheduled transmission and distribution roadside and right of way inspections in 2014 and 2015 and has conducted no formal visual inspections on its distribution circuits in the MPD since 2011.

With regards to the issue of reliability performance, Liberty noted that Emera Maine has experienced particularly low reliability when measured by the frequency of interruptions (SAIFI). In comparing Emera to other companies, Emera was essentially at the bottom of the comparative list. Table 4 below shows Emera's SAIFI performance using the IEEE Beta method of storm exclusions.

Table 4 [57]

SAIFI Values

Year	SAIFI
2011	2.40
2012	2.26
2013	2.81
2014	2.88
2015	2.34

With regards to failure to complete inspections, Liberty explains that good utility practice and the National Electric Safety Code (NESC) place substantial importance on the performance of inspections.[58] Liberty finds that a two year consecutive failure to perform the inspections in question violates good utility practice promoting reliability.

As part of its Rebuttal case and in its Brief, the Company states that it has accepted Liberty's recommendation that it should strive for reliability improvement and has adopted a five year improvement approach and has incorporated the targets associated with improved performance in its 2017 business plan.[59] The Company has also accepted Liberty's recommendation to continue its roadside and right of way inspections of transmission and distribution lines. The Company explains that due to other responsibilities, some poles which should have been inspected on a six year cycle are now being inspected on a seven year cycle. The Company claims that since very few inspections (less than 1%) yield defects that might require prompt attention the inspection delay did not materially impact safety or reliability.[60]

2. Discussion and Decision

The NESC requires line and equipment to be inspected at such intervals as experience has shown to be necessary. Liberty notes that the failure to perform such inspections caused the Company to miss opportunities to identify conditions threatening

[57] Liberty Report II-27

[58] Liberty Report at I-2.

[59] Beliveau Pref. Reb. Test. at 7.

[60] Sept. 28, 2016 Tech. Conf. Tr. 195-196.

interruptions. Given the Company's poor reliability number, this missed opportunity is troubling.

On behalf of the Company, Mr. Beliveau explained that the inspection program was suspended in 2014 and 2015 because the construction planners who had been doing such inspections were busy planning capital projects. This explanation is not acceptable. Once it became evident to management that the construction planners could not perform the scheduled inspections, it could have made alternative arrangements to either allow the planners to do the inspections or to have other employees or contractors perform the inspections. Indeed since 2015, Emera has contracted out the inspection work.

The Commission finds that Emera now has in place a suitable plan to address the inspections missed in 2014 and 2015 in BHD. However, the Commission finds that the Company's suspension of its inspection program in 2014 and 2015 in the BHD and failure to have any formal inspection program in the MPD, given both its historically poor reliability performance and the requirements of the NESC, was not a sound management practice. We address this failure below.

C. Customer Service

1. Background

As the Commission noted in its Order Initiating Management Audit, the Commission's Consumer Assistance and Safety Division (CASD) has had a number of discussions with the Company about billing errors which apparently have occurred as a result of CIS implementation problems. These problems include: failure to produce/send bills; bills not properly dated resulting in incorrect (early) due dates; one time fees put on more than one month's bill; and certain CEP customers being charged twice the state tax due for usage above 750 kWh.

The difficulties with implementing the new billing system were reflected in Emera's Bill Error Service Quality Index (SQI) Metric for 2015. In 2015, the Bill Error Rate was 1.31% for the Company and 1.69% for the Bangor Hydro District (BHD). These levels are significantly above the SQI target of 0.04% for this metric established in Bangor Hydro Electric's last Alternative Rate Plan (ARP).[61] In addition to the bill error problems, the CASD has also had a number of discussions over the past two years with Emera Maine related to problems involving the Company's management of its billing/customer service functions. These problems include:

1) Failure to issue refunds to customers of People's Power and Gas (People's) for improper charges by People's despite the Commission forwarding to Emera the security payment People's had placed with the Commission;

[61] Bangor Hydro Electric Company, Request for Approval of Alternative Rate Plan, Docket No. 2001-00410, Order Approving Stipulation (June 11, 2002).

2) Failure to respond to Commission requests for information regarding the status of the refunds for the People's overcharges;

3) Committing to unbundle customer charges (stranded costs and conservation) on customer bills prior to requesting a waiver of the Commission's Rules and significantly overstating the costs to re-bundle such charges;

4) Inability to stop billing customers for Competitive Electricity Provider (CEP) charges after customers had discontinued service with a particular CEP in contravention to the requirements of Chapter 322 § 3(E) of the Commission's Rules;

5) Inability to identify what premises were customer owned private lines for purposes of calculating which portion of storm restoration work done by Emera was attributable to such customers. The inability to identify whether storm restoration work was done on a customer's private line has resulted in Emera providing refunds to all customers billed for such service during the 2013-2014 time period;

The Commission's Order Initiating Management Audit also noted that during 2014 and 2015, BHD's Business Calls Answered in 30 Seconds performance was 62% (2014) and 58% (2015). This compares to the Service Quality Index (SQI) ARP Target for this metric of 80%. In addition, in 2015, BHD's Service Order Timeliness performance was 79% compared to the SQI established target of 89%.

The Liberty Audit examined the Company's credit and collections and customer service functions to determine if they were being managed and operated in an effective, prudent and efficient manner and reviewed the following customer service functions:

1. Customer service organization and staffing;

2. Customer service costs;

3. Customer satisfaction measurement;

4. Complaint resolution;

5. Account creation and management;

6. Meter reading and meter services;

7. Customer billing;

8. Payment and collections;

9. Contact center operations; and

10. Revenue protection.

The Liberty Report provided a comprehensive set of findings and recommendations in all of the customer service functions listed above. Rather than summarize the entire Customer Service section of the Report, we focus our discussion on those particular areas where the Auditors found problems with Emera's customer service that are relevant to our setting of rates in this proceeding and where the Company disagreed with Liberty's findings and/or recommendations. These areas relate to customer service organization and staffing, contact center performance, customer satisfaction measurement, payment and collections/bad debt, and billing.

2. The Findings of the Management Audit

1. Customer Service Organization and Staffing/Contact Center Performance

The Auditors examined staffing levels in the customer service functions of Customer Contact Centers, Billing & Payment Processing, Credit and Collection, and Meter Services. The Customer Contact Center personnel comprise the majority of positions within Emera Maine's customer service organization.

Liberty found that the current customer service staffing level was eight percent below the corresponding figures for prior years (after excluding CIS project resources). From 2011 to 2013, Emera Maine management focused on merger integration and rebranding under the Emera Maine name. As part of these efforts, the Customer Service organizations established a common management team for the BHD and MPD Contact Centers and created a common public web site. Following the 2011 merger integration analysis, Emera management committed to consolidating contact center operations in the MPD and closing the BHD Contact Center through attrition. The recommended consolidation of the centers assumed migration to a single, combined customer information system.

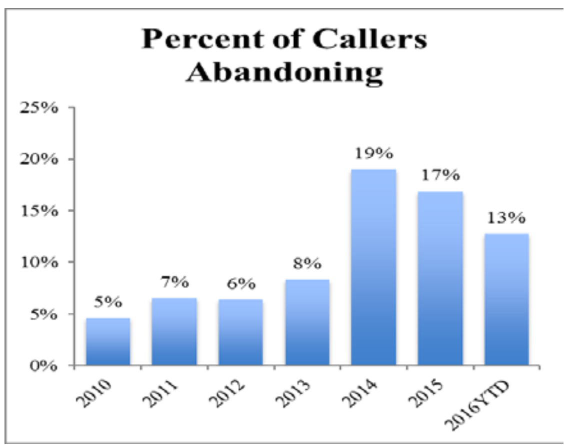
In January 2015, Emera management assembled a team to examine the structure and locations of its Contact Centers. The team recommended closing the BHD Contact Center in 2017. However, Emera executive leadership decided to defer closing the BHD center to 2019, when the lease expired at the current location. Emera management announced this plan to employees in April 2015 (shortly before the June 2015 eventual CIS go-live date). Subsequently, four Customer Service Representatives (CSR) left the BHD Contact Center during the period of April 2015 to October 2015. At the CIS go-live date, BHD Contact Center staffing was near its lowest level in two years.

At the beginning of 2015, Emera management lowered its Call Answering goal to 70 percent of calls answered within 30 seconds to allow for the expected decrease in productivity due to longer call handle times following CIS go-live. The goal

has remained at 70 percent since that time.[62] Liberty found that the BHD Contact Center had achieved its answering goal in only seven of the past 40 months and had experienced a significant drop in answer level performance since May 2014.

In addition to missing its call answer goal, the Auditors' also found that customers calling BHD experienced long wait times during 2014 and 2015, and again at the start of the credit season in 2016. Table 5 below shows prior to 2014, Emera averaged five to eight percent abandoned calls. In 2014, that percentage rose significantly to 20 percent of calls abandoned before speaking with a CSR. The level of abandoned calls moderated somewhat thereafter, averaging 13 percent year-to-date 2016. Liberty found that inexperience with the new customer system and inadequate staffing of the center created longer calls, longer customer wait times, repeat calls, and the highest abandonment rate in the last three years. According to Liberty, good utility practice limits abandonment rates to 5 to 10 percent of calls received, a level that Emera Maine has not achieved since 2013.[63]

Table 5



Finally, Liberty found that Emera Maine has limited capacity to handle calls during large outages and weather events. Callers can leave a message about their outage; however, if all the trunks are full, callers get referred to the Call Announce Box, which provides a "polite disconnect."[64] With all 54 ports on the Call Announce Box full,

[62] The auditors noted that an 80/20 call answering goal is common within the utility industry.

[63] Liberty Report at III-18.

[64] The polite disconnect message states "You've reached Emera Maine. Due to unusually high volume, all of our phone circuits are full. If you are calling to report an outage, please try calling again in a few minutes or visit emeramaine.com to report your outage online. For all other needs, please try again at another time during normal

callers hear a busy signal. Management does not track the volume of calls referred to the Call Announce Box when all lines are busy, nor has management conducted any stress testing of Contact Center telephony. An employee-led team conducted an early 2015 analysis that sought to identify potential solutions for handling high-volume calls received during storms and large outages. The team recommended proceeding with a third-party solution, invocable as needed during declared outage events.

Based on these findings, Liberty reached the following conclusions regarding Emera's Customer Contact Center performance:

1. Emera management has failed to adequately staff the BHD Contact Center to meet call answering service level goals consistently since 2013.

2. CSR Staffing levels were inadequate at go-live in June 2015, and proved insufficient to handle the call volumes received following that date.

3. Emera Maine does not have a high-volume call overflow service to ensure that customers can communicate effectively with the Company during a large outage or storm.

Based on these conclusions, the auditors recommended that Emera: 1) create and implement a focused plan to improve customer service working environments, focusing on higher retention and employee engagement; 2) properly staff the Customer Contact Centers and streamline Billing and Credit functions to eliminate multi-tasking and improve service level response; and 3) explore options for increasing the capacity of inbound communications channels to better support customers during a large outage or storm.

b) <u>Customer Satisfaction Measurement</u>

Emera Maine relies on the J.D. Power and Associates Customer Satisfaction Residential Survey to annually measure customer satisfaction. According to Liberty, this index has wide industry acceptance for measuring overall customer satisfaction and provides Emera Maine the ability to benchmark performance on a national and regional basis. Table 11 below shows that Emera Maine has ranked near the bottom in rankings of the East Midsize Segment of the J.D. Power & Associate Electric Utility Residential Customer Satisfaction survey for the past three years. In 2014, Emera Maine ranked 133 of 138 in the national panel for overall customer satisfaction. While Emera Maine's overall customer satisfaction trended up since 2014, so have those of the average for the East Midsize Panel and for the nation as a whole.

---

business hours, or visit our website to pay your bill, view payment options, and for additional company information."

Table 6[65]

Emera Maine's J.D. Power overall Satisfaction Ranking

Year	Ranking vs East Midsize Panel
2014	14 of 15
2015	14 of 15
2016	12 of 13

The Auditors recommended that Emera's customer service decision-making and execution include a focus on quality and that management consider the customer needs before, during and after each contact to ensure a high level of quality service. Call quality monitoring refers to the process of listening to or observing an agent's phone conversations or other multi-media contacts with customers. Quality monitoring can comprise one of the most effective methods for improving the level of service provided to customers. The process can enhance overall contact center performance, reduce customer callbacks, focus training efforts, identify system and process improvement opportunities, and facilitate employee development. Both Contact Centers now use the same call quality evaluation forms, but Emera management has yet to conduct regular call quality calibration sessions to align supervisor expectations of quality.

c) Payment and Collections/Bad Debt

As a result of their review, Liberty made the following findings regarding Emera's payment and collections/bad debt functions:

- Emera Maine's meter-to-bill process is disjointed, which unduly reduces accountability.
- Emera Maine's write-off process has been inconsistent and untimely.[66]
- Management has opportunities to shorten active collections time.

[65] Liberty Report at III-9.

[66] Liberty Report III-32.

The billing process splits between two work groups - the Contact Centers and the Billing and Payment group. Within the Billing and Payment group, AMI Analysts pull meter readings from the metering systems and review them for completeness. The readings are imported into each of the two billing systems for pre-bill processing. CSRs in the Contact Centers review and resolve any exceptions prohibiting billing. Following this work, Billing and Payment analysts review the bills again prior to export and print. The responsibilities for these billing duties are split between two groups with competing needs.

Liberty noted that Emera management asks CSRs to perform other "back office" billing-related duties as project work, when call volumes permit. This work includes processing returned checks and ACH payments, managing landlord agreements, return mail, processing deposits on final accounts, selecting accounts for field activity, applying reconnect fees, setting up collection activity for broken arrangements, calling delinquent commercial accounts, returning voice mail messages, responding to customer emails, and other seasonal transactions. Contact Center supervisors assign this back office billing support work. Supervisors in the Contact Centers and Billing and Payment have limited reporting available to identify workload volumes for this "back office" project work, making it difficult to determine required staffing or to identify backlogs.

The BHD credit group has not consistently worked the write-off process over the past five years. Each year a portion of the write-offs should have been written-off in the prior year. This inconsistency creates an unrepresentative view of write-off activity. A review of net write-offs as a percentage of revenue from 2009 to 2016 year-to-date reveals lower than average write offs in 2011 and 2015, and a much higher rate in year-to-date 2016. A glitch in the CU-CIS resulted in some BHD 2015 accounts being improperly aged which delayed write-off until 2016. Another CIS flaw prohibited accounts closed with open payment arrangements to be picked up by the write-off process. The Katahdin Project resolved both of these CIS issues during the post go-live clean-up effort.

Liberty observed that for 2015 and 2016 year-to-date, the average account balance at write-off represents about 10 months of delinquency. The current collection timeline serves to delay action on the account. Treating accounts sooner is better for the Company and customers. Based on these conclusions, Liberty recommended that Emera: 1) take measures to standardize and stabilize the write-off process; and 2) pursue options to act sooner on delinquent active accounts.

d. Billing

The Auditors found that BHD's billing performance has not returned to target levels after go-live. Bill error performance fell below target in June 2015 and has been problematic since, as Emera management continues to address CIS-related issues.[67] Most utilities implementing new customer information systems experience billing issues

[67] Liberty Report III-28.

post-implementation. However, as compared to its goal, Emera Maine's billing errors have spiked since go-live.

3. The Company Response

The Company responded to Liberty's findings, conclusions, and recommendations regarding Emera's customer service functions through the Rebuttal Testimony of Karen Holyoke. In her testimony, Ms. Holyoke stated that many of the recommendations made by Liberty were already under Emera Maine's consideration. She also noted that the Company is in the process of creating a 5-year Customer Experience Strategy and Plan and that it intends to work with stakeholders including the Commission and the Public Advocate to explore their thoughts and views about additional costs to customers as a result of implementing some enhancements.[68] However, some of Liberty's recommendations to improve customer service are implementable with little incremental cost while others carry considerable cost, which must be balanced against the benefits to customers of those investments.[69]

a) Customer Service Organization and Staffing/Contact Center Performance

The Company stated that it agreed in general with Liberty's findings regarding the staffing of its customer contact centers. The Company stated that between the integration of Bangor Hydro Electric Company and Maine Public Service over the past several years, the decision to integrate the two contact centers to a single contact center in Presque Isle, and the implementation of a new Customer Information System, the customer service organization has been under significant stress which has impacted the quality and level of customer service. The Company also emphasized that it has a plan to bring the organization through these changes and better meet customer needs going forward and that this was the reasoning behind creation of the Customer Experience management structure implemented one year ago.[70]

While the Company did not disagree with Liberty's findings regarding the staffing of its contact centers, it did wish to clarify several points. First, the Company stated that it added supervisory and assistant manager roles to its Contact Centers to ensure appropriate resourcing to make people, process and technology changes that are needed to improve contact center operations and also provide greater support to the Customer Service Representative function. The Company also eliminated most of the multi-tasking in the Contact Center by moving Credit and Billing functions into the Billing and Payment group.

[68] Holyoke Pref. Reb. Test. at 3.

[69] Id. at 18.

[70] Id. at 3 - 4.

The Company also stated that the Liberty Report was misleading regarding the eight percent reduction in staffing of the contact centers. The Company stated that it has experienced organizational changes over the past few years that make it challenging to make a direct comparison in staffing numbers. For example, prior to August 2015, there was no Billing and Payment function at the Company. That group had been part of a larger group, Business Support Services, and Business Support Services focused largely on information technology. The Company argued that it was probably not accurate for Liberty to have included those employees as customer service staffing in prior years.[71]

In her testimony, Ms. Holyoke pointed out that the Auditors' year-end Customer Service Staffing chart does not reflect the fact that Emera management increased staffing levels at the inception of the CIS project in 2012 by six project term customer service representative roles to meet the expected need for resources to cover increased training needs and effects of implementation on call volume and duration. Those resources were customer service representatives that were not dedicated to the CIS project team (and were not included in the cost of the CIS project). Therefore, Liberty's conclusion that customer service staffing has decreased is misleading as it compares current staffing to what was an inflated staffing level to meet the demands of the CIS project. The Company also argued that since the Fall of 2015, it has been in the process of recruiting additional customer services representatives. The Company included a chart that it claims makes clear that the Company's customer service functions are staffed today at a rate higher than the pre-CIS project levels.[72]

The Company also expressed concern regarding Liberty's' finding that Emera management announced its decision to migrate to a single contact center in Presque Isle just two months before the implementation date of the new CIS and that the staffing levels were lower at the CIS go live than at any time in the prior years. The Company stated that this implies that management used poor judgment in announcing the call center consolidation. The Company went on to state that the primary reason for making the announcement when it did was the impending negotiation of the collective bargaining agreement. Emera management did not want to be viewed as holding out important information that had implications for the bargaining unit. The Company further stated that employees were already aware that the Company planned to centralize the contact center operation in the future.[73]

The Company also sought to clarify Liberty's conclusion regarding the inadequate staffing at its BHD Contact Center. The Company first noted that staffing of the Contact Center in Bangor should not be considered in isolation from the staffing of

---

[71] Id. at 6.

[72] Id. at 8.

[73] Id. at 6 – 7.

the Contact Center in Presque Isle because calls from customers in the BHD are answered both in Presque Isle and in Bangor. As such, staffing in both locations is relevant to meeting service level goals.

The Company agreed with all of Liberty's findings relating to the Contact Center performance with the exception of abandoned calls. The Company argued that absent exceptional peaks for storms and CIS go-live, the performance is quite consistently below 10% calls abandoned, with some minor exceptions. The Company acknowledged that while it is true that the Company did not have the requisite number of representatives in place to meet service level goals, the Company did make reasonable efforts to do so. The Company explained that it was hampered by employee turn-over, the extended training period needed to bring new representatives up to speed, and the repeated extensions of "go-live." The Company further stated that while it is still experiencing extended call durations as a result of the new CIS, the Company is now approaching its target of 70% of calls answered in 30 seconds or less and is working to be in a position to meet a service level 80% of calls answered in 30 seconds or less by the end of 2017.[74]

Finally, the Company agreed with Liberty's recommendation to "explore options for increasing the capacity of inbound communications channels to better support customers during a large outage or storm." The Company stated that it was already investigating options for High Volume Call Answer techniques, and improved communication channels such as two-way SMS text. The Company pointed out, however, that implementation of such improvements comes at a cost and that some of these customer service improvements are likely to impact customers' rates.[75]

2. <u>Customer Satisfaction Measurement.</u>

The Company acknowledged that the customer satisfaction ratings from J.D. Power demonstrate that Emera Maine has an opportunity to improve customer satisfaction. The Company pointed out, however, that the emphasis on the relative ranking among a wider group, rather than on the actual scoring, is not necessarily fair because all utilities surveyed are actively working to improve their J.D. Power ranking. The result is that all utilities' scores are increasing, but it takes an extremely significant effort to actually move up in the rankings. These significant efforts have cost associated with them, which impacts customers' rates.[76] The Company also pointed out that its J.D. Power scores have increased over the past three years.

The Company also argued that J.D. Power's survey is not a "pure" utility customer satisfaction survey. Many of the items that feature prominently in the J.D. Power rankings include total electricity bill price (including supply and conservation and other pass through charges), customer impressions of efficiency efforts of the utility and

---

[74] Id. at 17.

[75] Id. at 22.

[76] Id. at 10 -11.

other items that are completely outside the control of the utility.[77] Finally, the Company stated that it is important to note that J.D. Power is an electronic survey, which reaches only customers who have access to the internet and does not include feedback from all customers. While deemed to have reached a number of customers to ensure valid and reliable results, the total number of customers reached is a relatively small percentage of total Emera Maine customers (less than 1% in total).[78]

The Company also disagreed with Liberty's conclusion that its overall customer satisfaction levels fall well below panel averages and remain unsatisfactory. The Company stated that while it agrees that its scores in the J.D. Power survey are in the bottom of the ranked list of utilities, there is no evidence that simply being second to last is "unsatisfactory." The Company points out that its customer service scores have improved year-over-year and much depends on what local customers expect from their utility compared to customers of the higher ranked utilities. The Company states that local customers may prefer having a lower ranked utility rather than paying higher rates and the small sample size of the survey calls into question the reliability of the data being used for the definitive purpose of concluding service is "unsatisfactory."[79]

3. Billing

The Company agreed with Liberty's conclusion that its billing performance has not returned to target levels. The Company stated that while it does not disagree with this conclusion, high occurrences of bill errors are common with customer information system implementations and identified errors are being resolved through a strong process involving prioritization and a team of internal and external resources focused on resolving CIS incidents.[80]

4. Payment and Collections/Bad Debt

The Company stated that it generally agrees with all of the Auditors' findings regarding payment and collections and that it did not have any concerns or disagreement with the recommendations relating to its write-off process. [81] The Company noted that it is currently evaluating the best way to synchronize the write-off process between its two districts and anticipates a transition plan by the end of 2016.[82]

[77] Id. at 11.

[78] Id. at 12.

[79] Id. at 16.

[80] Id. at 18.

[81] Id. at 14.

[82] Id. at 23.

4. Discussion and Decision

Under the provisions of 35-A M.R.S. § 301, a public utility is required to provide safe, reasonable and adequate facilities and service to its customers. Because the statutory standard of reasonable and adequate service cannot be defined with precision, the Commission has the responsibility to consider the facts and circumstances of a particular case to determine whether the service provided is reasonable and adequate. *Hogan v Hampden Telephone Company* F.C. 2438, 36 PUR 4th 480, 485 (May 16, 1988).

The Commission has employed the following three criteria in determining whether service practices were unreasonable or inadequate:

1) whether the company's practice substantially departs from the regular and accepted practice of the company in question as well as that of other utilities in general;

2) whether benefits to the company of the practice are outweighed by the adverse impact of the practice on its ratepayers; and

3) whether the company's practice results in inadequacy of service when considering such factors as the number of customers affected, the duration of the impact, the reason for the company's action and the departure from historic trends.

Hogan v Hampden, supra. 36 PUR 4th at 485. Evidence warranting a finding adverse to the utility on any one or more of these criteria is sufficient to support a finding that the practice is unreasonable. For the reasons discussed below, we find that from 2014 to the present, Emera Maine's call center performance has failed to meet criteria (1) and (3) above and, therefore, must be considered inadequate and unreasonable.

As part of BHE's one and only Alternative Rate Plan (ARP) approved by the Commission, the Commission included a Call Answering Metric as part of the Service Quality Index (SQI) penalty mechanism. *Bangor Hydro Electric Company, Request for Approval of Alternative Rate Plan,* Docket No. 2001-410 Order Approving Stipulation (June 11, 2002). The Call Answering Metric established in BHE's ARP was 80% of calls answered in 30 seconds. The 80/30 Call Answering criteria is essentially the same standard that has been employed in all of Central Maine Power Company's ARPs.[83] After the expiration of BHE's ARP, the Company retained the 80/30 standard as its performance target up until January 2015. The Liberty Auditors state that the 80/30 Call

[83] See, *Central Maine Power Company, Chapter 120 Information (Post ARP 2000) Transmission and Distribution Utility Revenue Requirements and Rate Design and Request for Alternative Rate Plan,* Docket No. 2007-00215, Order Approving Stipulation (July 1, 2008).

Answer Metric is a common target in the utility industry.[84] Up until 2012, BHE consistently met the 80/30 target on an annual basis.

Beginning in mid-2013, BHD started missing the 80/30 monthly target on a fairly consistent basis. Call answering performance at the BHD continued to decline in 2014 and went as low as 30% in October and November 2014. In 2014, on a company-wide annual basis, call answering performance was 64% of call answered in 30 seconds.[85]

Starting in January 2015, for purposes of calculating its employee bonuses, Emera Maine lowered its call answering target to 70% of calls answered in 30 seconds. Ms. Holyoke explained that the Company took this action since it was obvious to management that it would not be able to meet the 80/30 target in 2015 and that it wanted to provide incentives to its employees to keep morale up.[86] The Company also explained that management did not want to provide incentives to its employees to inappropriately shorten calls during CIS deployment. On an annual company-wide basis, the Company's call answering metric performance was 66% in 2015, with the poorest performance months being May and June (the months of CIS go-live). During those months, the performance at the BHD call-center was slightly above 20% and on a company-wide basis performance was 40%.

Since go-live, performance steadily improved through December 2015 and exceeded the Company's revised 70/30 target in consecutive months. Since February 2016, performance seems to have faltered some and in April 2016 performance at the BHD was again at about 22%. The Company's Calls Answered in 30 Seconds (excluding storms) since January 2013 is presented in Table 7 below.

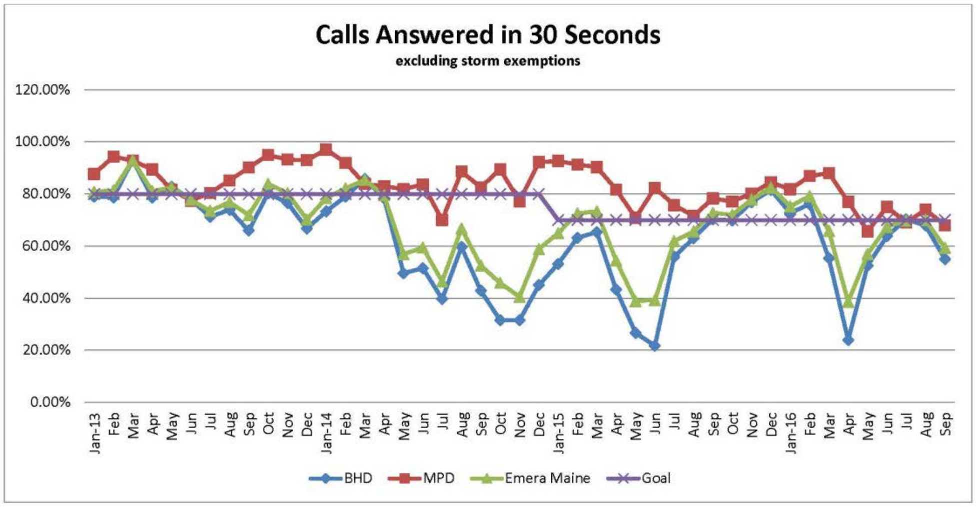
---

[84] August 15, 2016 Tech. Conf. Tr. 56.

[85] Liberty Report at III-6.

[86] Sept. 28, 2016 Tech. Conf. Tr. 37

Table 7 [87]



Another important indicator of call center performance is the Calls Abandoned statistic, indicating whether or not the subject utility is barely missing the Calls Answered in 30 seconds metric or is missing the metric to such an extent that callers are giving up and abandoning their calls. Liberty stated that good utility practice limits abandonment rates to 5 to 10 percent of calls received.[88]

Liberty found that Emera Maine has not achieved this standard since 2013 noting that over the past three years, Emera Maine's CSRs have put callers on hold more and more frequently. Emera Maine disagrees with Liberty's assessments and argues that other than four exceptional peaks resulting from unusually powerful storms (in December 2013, July 2014 and November 2014) and the launch of the CIS, (June 2015) performance has consistently been below 10%.[89]

Tables 8 and 9 below presents the call abandonment information provided by both Liberty and the Company.

---

[87] From ODR 06-03 Attachment A.

[88] Liberty Report at III-18.

[89] Holyoke Pref. Reb. Test. at 15.

Table 8[90]

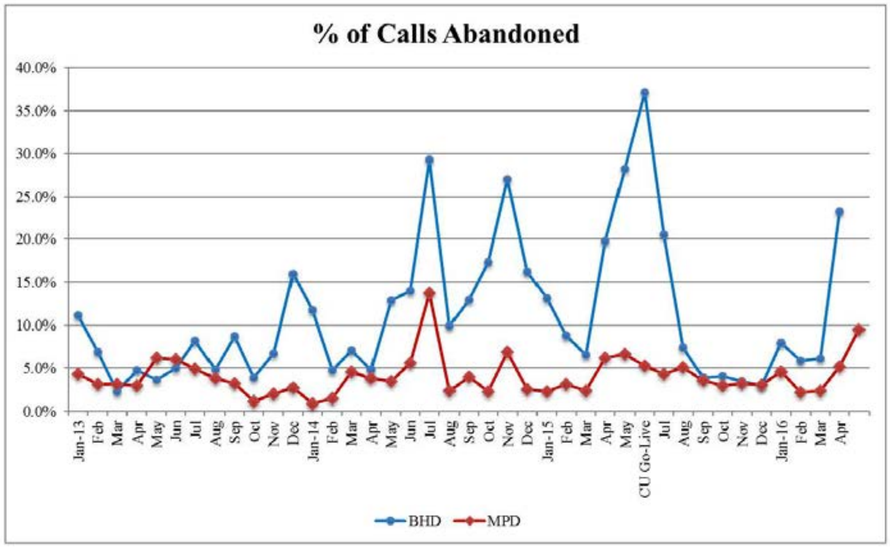
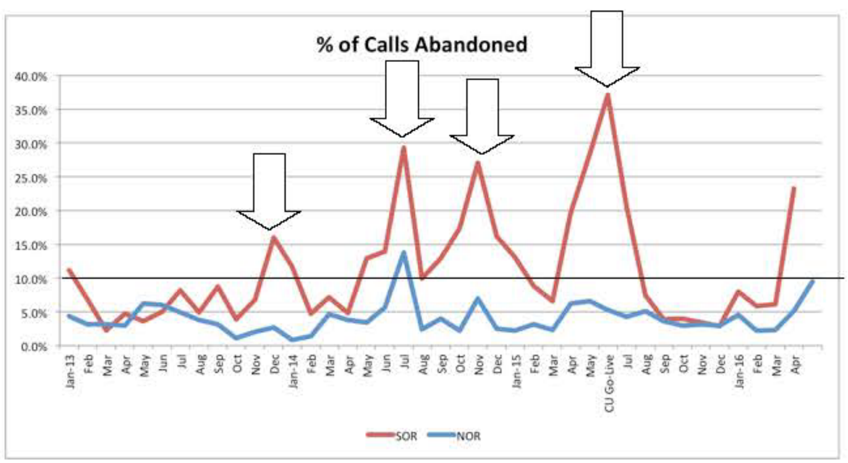


Table 9[91]

Chart 4-Calls Abandoned & Significant Outage/Service Events



At the September 28, 2016 Technical Conference, Ms. Holyoke recognized that calls abandoned were above the 10% level in April and May of 2014, several months before the July 2014 storm. Calls abandoned were also above 10% in September and October 2014 and December 2014 and January 2015, the months before and after the November 2014 storm. Calls abandoned also exceeded the 10% level in April and May

[90] Liberty Report at III-19.

[91] Holyoke Pref. Reb. Test. at 15.

2015 the months before go-live.[92] The data presented to us then, supports the conclusion that Emera Maine's call abandonment rates since the start of 2013 have frequently been above 10% and have consistently been above the 5% level.

The Company explains that both the Company's poor call answering performance and poor call abandonment performance can be explained by the resource drain created by the CIS project. In its Report, Liberty concluded that Emera Maine had failed to adequately staff the BHD contact center to meet call answering service levels for 13 months prior to go-live, were inadequate at go-live in June 2015, and proved insufficient to handle the call volumes received following that date.[93] In support of this conclusion, Liberty presented information concerning customer service staffing since 2013.[94]

In its rebuttal, the Company noted that the staffing information was misleading since it did not go back in time to when the Company increased staffing in 2012 and also did not reflect more recent hires in 2016. The information presented by Ms. Holyoke indicates that the number of CSRs went from 43 in 2012 to 46 in 2013, back down to 43 in 2014 and then up to 48 in 2015 and now to 51 in 2016. Included in these numbers are project term employees hired on a fixed term basis. Ms. Holyoke testified that the Company's attempt to address the increase in resources needed over the course of the CIS was challenged by the fact that the project term employees took positions when available elsewhere in the Company. However, Ms. Holyoke also recognized that the staffing levels were influenced by regular employee churn and that the extension of the CIS project created an additional challenge to adequately staff the Call Center.

The Company has likened the CIS implementation to an extraordinary storm event but which lasts for several years and excuses the drop in its performance. Unlike a storm event, however, CIS implementation is an activity initiated by management which can be planned for and planned around. In response to the question of why the Company didn't recognize "the storm" coming in 2013, Mr. Richardson responded:

> We under estimated for sure the complexity, the level of time, the cost. We were not experts in IT implementations. We were not - - we know a lot about transformers and what load to put on them, but how long should it take us to change out the CIS system, what effects it would have on the company, we under estimated those in a big way and that is true.[95]

---

[92] September 28, 2016 Tech. Conf. Tr. 61-63.

[93] Liberty Report at III-27.

[94] Id. at III-3.

[95] Id. at 69.

Given the assessments provided to the Company about the complexity and difficulties encountered in CIS projects, the need for additional resources at the call center could have, and should have, been known to the Company.[96]

In addition, it appears that all of the Call Center performance issues cannot be explained by the "CIS storm". In 2013, long before the Company began its CIS training of CSRs, the Company's BHD Call Center performance, as evidenced by the Call Answering and Call Abandonment statistics, was faltering. This should have been another powerful signal to the Company of a problem that needed to be addressed and that if it was not, Call Center performance would likely get significantly worse when CIS was actually put in place.

The Company has alleged that the Call Answering Metric is only one aspect of Call Center Performance and that call quality also is really important regarding customer satisfaction. Mr. Richardson acknowledged, however, that the two attributes, call quality and call answering, are not mutually exclusive objectives. [97] In addition, while we recognize the limits of the J.D. Power Satisfaction Survey, given Emera's scores on the survey, it would not appear that the Company's performance in other areas has been sufficient to offset any dissatisfaction that customers have had with the Call Center performance.

The Commission has previously held that the requirement of reasonable and adequate service encompasses more than the delivery of electric energy but also incorporates a requirement that the utility, as a monopoly service provider, adequately and reasonably communicate with its customers. *George Lee, Appeal of Consumer Assistance Division Decision #2000-8603 Regarding Bangor Hydro-Electric Company,* Docket No. 2001-00597, Order at 9 (Dec. 13, 2002) (hereinafter *Lee).* This duty would include the duty to take calls from its customers in a reasonably prompt fashion and has been embodied in the Call Answering and Call Abandonment standards discussed above. Since 2013, the Company has consistently failed to meet the 80/30 Call Answering standard, has failed to meet its more relaxed 70/30 standard, and has failed to meet even the low end (10%) of industry Call Abandonment standards. Thus, the Company's failure to even come close to meeting such standards over a protracted period leads the Commission to conclude that the Company has failed to meet both criteria one and criteria three of the *Hogan* standard, set forth above. Specifically, the Commission finds that the Company's Call Center practices substantially depart from the regular and accepted practice of both the Company and of other utilities (criteria one) and that the Company's Call Center practices result in inadequacy of service when considering the number of customers affected, the duration of the impact, the departure from historic trends and the Company's failure to adequately take sufficient steps to plan for the impact of the CIS implementation on Call Center resources.

[96] Emera Maine Exh. 2.

[97] Id. at 39-40

In applying the call center service standards to the Company's performance, the Commission is not saying that any failure to meet the standards in a particular month or even a year would result in a finding of inadequate service. In this instance, however, the deviations from accepted standards are so great and have continued for so long that there really is no question that the Company's performance has been, and continues at this time, to be inadequate and unreasonable. In *Lee*, the Commission recognized that it has a variety of tools available in instances where a utility is not meeting its obligation to provide adequate service. One available tool is to consider such issues during the rate-setting process. *Id.* at 10-11. We address how the finding of unreasonable and inadequate service should be addressed in the context of this rate proceeding in section VII, below.

In addition to call center performance, another area in customer service where we find Emera Maine's performance to be below a standard that we would consider to be reasonable is in the credit and collections or meter to cash function. As discussed in the Liberty Report, the BHD credit group has not consistently worked the write-off process over the past five years and in each year a portion of the write-offs should have been written in the prior year. This inconsistency creates an unrepresentative view of write-off activity making it difficult to assess how the Company is doing in any one year or what the likely amount of bad debt will be in the future.[98] These problems are reflected in our discussion of Bad Debt Expense in Section III, above. We also find that the Company's meter to cash function has been hampered by the Company trying to have CSRs multi-task and do both credit and collections work and also take customer calls.[99] It is likely that this problem has lengthened collection times and ultimately caused increases in bad debt expense.[100]

D. CIS

1. Background

In 1995, Bangor Hydro Electric Company (BHE) implemented the Banner CIS to perform BHE's customer billing. BHE upgraded the Banner CIS in 1999 to address Maine's restructured marketplace and to address Y2K issues. Based on its assessment that the Banner CIS posed a risk of unrecoverable failure, Emera Maine began the CIS replacement process in 2010. As part of this process, the Company first selected AAC as a consultant to assist the Company in the vendor selection process. Following an RFP process, the Company selected Cayenta Utilities (Cayenta or CU) to develop the new system. Emera also retained AAC to assist the Company in overseeing the development and implementation of the new system (the CU-CIS).

In Emera Maine's most recently completed rate case, Emera Maine proposed to have the costs associated with Phase I (the Bangor Hydro District portion) of its new

---

[98] Liberty Report at III – 32- 34.

[99] Id. at II-37.

[100] *See* EXM 06-10 and Liberty Report at III-37.

CIS system included in rates. As part of its initial filing, in December 2013, Emera Maine estimated the cost of the CIS System to be $17,271,141 with an implementation date of May, 2014. In February 2014, Emera updated its cost estimate to $18,763,200 and the Phase I implementation date to August 2014. At that time, the Company projected that Phase II (the Maine Public District portion) of the project would be completed at the end of the first quarter of 2015. As part of the Stipulation which resolved the Company's rate case, the costs for the Phase I CIS project were included in rates based on a $19,654,947 cost projection and an August 1, 2014 in service date. *Emera Maine, Proposed Increase in Rates (Bangor Hydro and Maine Public Districts),* Docket No. 2013-00043, Order Approving Stipulation (June 30, 2014).

In its direct filing in this case, Company witness Karen Holyoke testified that at the time that Emera Maine entered into the Stipulation it had provided testimony that the estimated cost of the CIS was $23,331,000 rather than $19,654,947. Ms. Holyoke testified that the final cost to implement the CIS for the Bangor Hydro District was $30,874,024 and that the Phase I CIS was not implemented until June 2015.

2. The Liberty Report

Liberty organized its review of the CIS into the following eleven areas which it considered to be important in effectively planning and managing a project such as the CU-CIS:

1. Business Case
2. Governance/Project Management
3. Resource Management
4. Contract Management
5. Scope/Change Order Management
6. Schedule/Timeline Management
7. Project Phases
8. Cost Management
9. Project Quality Management
10. Risk Management
11. Post Go-Live Experience

a) Business Case

The business case prepared for the new CIS provided the necessary documentation to justify the need for the project. The recommendation package provided the Emera Maine Board of Directors followed the standardized approach for seeking such approvals.

b) Governance and Project Management

The Executive Steering Committee (ESC) consisted of all members of senior management and other stakeholders. The ESC provided project guidance, resources and input to the project as needed. The ESC did not approve change requests or have other decision-making authority. According to Liberty, the ESC never had full attendance at any of its meetings during the course of the project. Liberty noted that its interviews and document reviews did not demonstrate a substantial ESC role in providing project guidance, participating in vendor contract processes or in ensuring effective management of key service providers.

Liberty found the Emera Maine project management, which at times employed three project managers, was contrary to the principal of unity of command. Each of the three project managers had various responsibilities (some overlapping) regarding risk, project schedule, deliverable acceptance, and direction of team members. Liberty's interviews consistently indicated that the project managers sought consensus before making decisions which was a source of delay in recognizing and responding to performance issues. Liberty noted that after the project experienced delays, Emera Maine added a Senior Project Manager and a Technical Project Manager which further added to the complexity of the organizational structure. In addition, Liberty found that the Project Sponsor, who had responsibility to provide high level oversight of the project, had significant other duties as the Emera Maine's V.P. of T&D Operations.

Liberty found that the project's status reporting was not clear, concise or actionable. Not all reports were shared with all of project management. The reports used multiple formats, were frequently undated and the completion status in the report did not reflect what was actually happening in the project. Liberty noted that sound status reporting informs project stakeholders of the critical aspects of the project health, including schedule, cost and scope, and prevents surprises to project sponsors and stakeholders by reporting status fully and timely and by identifying variances trends and emergent circumstances.

c) Resource Management

Liberty found that Emera Maine experienced significant gaps in its efforts to staff the project properly. These gaps occurred with regards to both its contribution to staffing and to vendor staffing. AAC and Cayenta both provided Emera Maine with estimates of Company resources that the project would require. The Cayenta recommendation only addressed the discovery phase of the project while the AAC recommendation addressed staffing across all project phases. AAC's recommendation

was for an initial Company staff of 19.5 full-time equivalent (FTE) personnel and a maximum of 27 FTEs at project peak.

Liberty found that nominally the organization charts that management provided showed staffing at the suggested levels. However, based on its interviews, Liberty found that Emera Maine was simply unable to make the required levels of contribution since the pull on resources assigned to the project to perform other work outside the project was substantial. There was a significant difference between a “body” assigned to the project and the actual hours that such bodies could contribute to the project.

Liberty also noted that the Cayenta Project Manager changed during the course of the project due to performance issues. The second Cayenta Project Manager’s resume indicated no prior project management on a Cayenta CIS implementation. Based on its review of the second Cayenta Project Manager’s qualifications, the turnover reported in the Project Management Quality Report, and management’s observations as reported during its interviewing process, Liberty concluded that Cayenta did not provide the project with a high level of product knowledge.

d) Schedule Management

Liberty states that good practice calls for the creation of a detailed schedule at initiation, supported by an appropriate schedule tool (such as MS Project) which should be updated weekly. The January 2012 project plan did not contain sufficient detail to ensure that team members clearly understood assignments and completion dates. The status reporting did not use critical path analysis to assess the impacts or options for addressing schedule slippage. According to Liberty, the lack of critical path analysis obscures the understanding of true schedule status, what is driving delays and where action can be taken to recover.

e) Contract Management

Liberty found that Emera Maine applied appropriate procurement practices in contracting with AAC and Cayenta. Liberty noted that cost was a strong factor in Cayenta’ s selection, with Cayenta obtaining a significant cost advantage as a result of a far lower estimation of required hours when compared against competing bids.

Table 10 below presents a summary of the costs and hours of bids considered.

[Begin Confidential]

Table 10

[redacted]				
	[redacted]		[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[End Confidential]

f) Scope Change/Order Management

Liberty found that the project employed a well-documented change request process which ultimately addressed 123 change requests. The number of change requests for scope extensions (16%) created relatively small cost increases. Such change requests did contribute to schedule delay. In particular, Liberty noted the delay caused by including, and then dropping, MPD from the project after the vendor contracts were executed.

g) Project Phasing

Liberty notes that effective planning includes the creation of plans to manage all major aspects of a project. Liberty found that the Cayenta planning phase and the Cayenta execution phase overlapped. Such an approach leads to inefficiencies and delays in the execution phase. Liberty also found that the project originally planned for the creation of testing and training plans in the third quarter of 2012. However, these materials remained in development until late 2014.

h) Cost Management

Liberty noted that effective cost management requires a full understanding of what services and deliverables are included as part of a contract and a plan for addressing those not included. Where one bid is far lower than the others received, one should understand the reasons. In this instance, Cayenta offered a bid lower than the others considered by the Company. Liberty noted that its interview with AAC leadership

disclosed a range of estimates for a CIS project of this type to be between $12.2 million and $22.1 million and a schedule of 24 months from project initiation to go-live.

i) Quality Assurance

According to Liberty, Project Quality Assurance should provide a comprehensive, systematic monitoring and evaluation of the project to ensure that the standards of quality are being met. Liberty noted that in this case, the Project Quality Management Report was not completed every month. In addition, there was no evidence of quality reports from Emera Maine's auditors despite the Project Quality Assurance Plan which stated that project reviews by Emera Maine auditors would focus on ensuring that the project was progressing as it should.

j) Risk Management

The Company's project charter documented a Risk Management Process for identifying and documenting risks. Risks were identified and tracked, although the number of risks closed per month was not provided in the documents reviewed.

k) Post Go-Live

The CIS went live in June 2015. Liberty reported that a number of items in the original CIS scope were not completed at go-live. The Company launched Project Katahdin to resolve many of these issues, including: fixing a flaw that prohibited accounts closed with open payment arrangements to be picked up by the write-off process; enabling enrollment of customers into the Low-Income Assistance Program (LIAP); accomplishing more than 40 EDI fixes to improve the quality of EDI transactions with marketers; and creating the ability to process returned checks and fees for the appropriate reason. Liberty found that Project Katahdin was successful primarily because it used smaller teams and apportioned the work into short-sprint projects designed to achieve quick wins and build confidence. Additionally, the team was allowed to work directly with the business unit to resolve complex issues. Liberty noted that Project Katahdin did not address all of the scope items which were excluded at go-live and that some items have been deferred to Phase II of the project.

l) Conclusions

Based on the data gathered by Liberty and the findings set forth above, Liberty reached the following conclusions:

1. The Project management team approach, overly focusing on consensus-based decision-making, diminished the ability to make timely, effective decisions.

2. Use of the AAC Project Manager to co-manage with the Company's Project Manager contributed to a lack of cohesive project direction.

3. Lack of experienced resources affected cost, quality, and schedule.

4. The lack of Company resources delayed the project and increased costs.

5. Change requests created a drain on resources, and affected quality and schedule.

6. Lack of a strong project approach and plan, combined with the variable quality of status reporting, complicated efforts to identify and resolve problems in a timely manner.

7. Deliverables were accepted before work completion.

Based on these conclusions Liberty concluded that Emera Maine management should be held accountable in part for the schedule delay. In support of this conclusion, Liberty stated that:

> A lack of awareness of the size of project needs led to underdevelopment of the project's management structure, methods, and practices, and an inability to provide the Company resources necessary to maintain the schedule caused significant delay. This delay caused material cost impacts by extending the period of time across which Emera Maine had to sustain Cayenta, AAC, and internal project management and administrative resources. Finishing the work materially sooner, as should have been the case, would have shortened the period of time across which these resources were required.[101]

Liberty noted that during its field audit work, a senior AAC executive stated that he viewed a schedule of 24 months as reasonable with a resulting cost ranging from $12 to $22 million. Liberty stated based on its experience, 24 months also seemed reasonable. An 18 month delay was calculated when the June 2015 go-live date was compared to the projected start date of December 2013. Liberty recognized that a certain portion of the delay could be attributed to a reasonable postponement of the go-live date in order to mitigate customer affecting problems. On the other hand, the Company was able to accelerate the go-live by deferring a number of functionalities. Ultimately, Liberty concluded that reducing the management attributable delay by one-third, or to 12 months, was reasonable.

To calculate the management attributable delay costs, Liberty took the sum of 12 times: 1) the monthly costs of the Cayenta Project Managers; 2) the monthly costs of the AAC consulting team; and 3) the Emera Maine management charges (using the 2014 "burn rate"). The resulting sum was $2 million. Liberty noted that an additional amount attributable to excess AFUDC charges would need to be added to this amount based on a reduction of $2 million in project costs and the earlier achievable end date of the project based on the 12 month management attributable delay. Liberty proposed

[101] Liberty Report at IV-25.

that Emera Maine, working with the Staff, develop the AFUDC calculation. In calculating the delay attributable to Emera Maine's management, Liberty did not include costs associated with the direct work performed on the project as a result of change orders or the staff augmentation that AAC and Cayenta provided to replace Emera Maine resources in areas such as testing and training since it was Liberty's view that the change requests associated with the development work did not, on a net basis, add costs that would have otherwise been avoided had management been more effective earlier.

Liberty replied to the Company's witness's responses to the Management Audit in a Reply Report filed on October 7, 2016. In its Reply Report, Liberty first responded to the claims that it utilized an improper and irrelevant standard when it measured performance against good utility practice. Liberty clarified that it used the term good utility practice in its report as an equivalent term to reasonable or prudent practice and this equivalency is common in the utility industry.[102]

Second, with regards to Critical Path Analysis, Liberty reiterated that the Company did not employ this technique. Liberty noted the four conditions to employ Critical Path Analysis, as acknowledged by the Meridian witnesses, include knowledge or estimates of: 1) all required tasks and activities; 2) estimated durations of those tasks and activities; 3) dependencies (what tasks and activities depend on others) and project milestones and end dates. These are conditions which one would expect from capable management in a project such as this.

Liberty responded to the Meridian "27" analysis first by noting that nowhere did it recommend that the Company should have hired 27 high performing CIS experienced IT resources from the greater Bangor area. Liberty states that the Meridian analysis is flawed and overstates costs in several ways. First, even if we were to accept the Meridian $11 million incremental cost calculation, when one looks at the total budget overrun of $12 million there would still be $1 million attributed to overspending. Second, Meridian failed to remove the $3 million in costs clearly accounted for in change orders for resources to augment the Company's resources. The analysis also failed to remove the costs for Emera Maine employees initially assigned to the project and who charged $5 million. In addition, Meridian failed to account for the fact that the 27 FTEs would not be needed for the full term of the project and made no reduction to account for this fact. To calculate the high end of the 27 FTE range, Meridian used a rate of $200. Liberty considered the use of this number, and the resulting incremental cost calculation of $23.2 million, to be "off the charts". Instead, the analysis should have recognized that a substantial number of the incremental employees could have been brought in to supplement the CSR force at a fully loaded rate of $44 which when paired with a more reasonable IT consultant rate would yield a blended rate of $86 per hour.

Liberty also clarified its findings regarding management's failure to adequately staff the project in a timely manner. Liberty points to a July 12, 2012 AAC Project Quality Management Report that stated the "teams have conflicting responsibilities now

[102] Liberty Reply Report at 1.

and this is expected to increase;" a November 2012 "Lessons Learned" Report which reported the shortness of resources; and a January 13, 2013 Lessons Learned document that stated that the "Team was/is too small".[103]

Finally, Liberty agrees that it did refer to the September 30, 2011 contract signature date as the start date of the project. This was an inadvertent reference error, however, and in calculating the project length, Liberty measured the timeline from the kick-off date of December 12, 2011. This resulted in a projected time of 24 months to (December 2013) and a 18 month delay when measured against the June 2015 go-live date.

3. Emera Maine Response

Emera responded to the Liberty Report through the testimonies of Mr. Richardson, Ms. Holyoke, and the Selders/Thielacker panel (also referred to as the Meridian witnesses). Through these various pieces of testimony, the Company contested nearly every finding and conclusion contained in the CIS section of the Liberty Report. In its Brief, Emera Maine synthesizes the various pieces of the Company's rebuttal to the Liberty Report.

With regards to the Project Plan, Emera notes that the Meridian witnesses found it to be extremely detailed[104] and that Liberty's standard that the Project Plan should have been firm and comprehensive at the start of the project was unreasonable. Meridian also found that the 2012 Project Plan which contained a 100-day outlook was appropriate.

The Company responds to the findings as they relate to the ESC by stating that the project reporting was appropriate for this level of management. The fact that the ESC did not experience full attendance at any meeting is typical of executive committees and this issue did not result in any cost/time overruns.[105] Meridian also found that its review of the ESC minutes showed significant presentations and discussions of project risks, deliverables, and next steps, contrary to Liberty's finding that its review did not disclose a significant ESC role in providing project guidance.

While the Company agrees that initially it did not employ a "unity of command" management model, Meridian witnesses testified that it is standard practice for the vendor and system integrator to provide project management resources during a major implementation.[106] The Company also points to the fact that while there were a significant number of change requests, a robust change order process is evidence of good management and that the fact that there was a "flurry" of change orders at the end

[103] Liberty Reply Report at 10.

[104] Meridian Report at 6.

[105] Meridian Report at 7.

[106] *Id*. at 8.

of the project is not unusual.[107] Again, here, while the ESC did not approve change orders, this was appropriate given the ESC's role.

Emera criticizes Liberty's findings that the Company did not identify and assess critical path activities. The Company asserts that it did identify critical pathways, as demonstrated by change orders assigning staff to such functions and, moreover, Meridian explains that this analysis is not common for most utility IT organizations.[108] In addition, Emera questions Liberty's critique of the overlapping of phases by the Company, as such an approach is recommended by the Project Management Institute and, according to Meridian, is common in these projects.[109] Regarding Liberty's findings that the Project Quality Management Report was not always complete and that the Project Quality Auditor would occasionally perform other duties, Emera asserts that, overall, its project quality reporting was adequate.

Emera refutes the Liberty finding that it failed to recognize the appropriate staffing that the project would entail by both questioning whether the labor market would allow staffing at the level recommended by AAC and stating the Company's staffing was reasonable given the labor market. Further, Emera asserts that dedicating project team members 100% to the CIS implementation is not practical given the size of the Company. Emera explains that it is one of the smallest utilities in the country located in a region without easy access to a pool of highly trained IT personnel. While Liberty suggested Emera utilize resources of its affiliates, the Company claims that doing so would have limited value, since its affiliates do not have readily available IT personnel, and it would have had to pay for these services, raising project costs.

As part of the Meridian testimony, the Meridian witnesses prepared what has been referred to as the "27 FTE" analysis. In that analysis, the Meridian witnesses calculate the additional costs of adding the recommended 27 FTEs as being between $11.0 million and $23.1 million depending upon whether internal or contract resources were used. The Meridian witnesses then compared this amount to the expended amount and conclude that there was either no damage caused by not hiring the FTEs, or that hiring the FTEs would have wound up costing more than the expended amount.

Emera also asserts that its Project Manager did have appropriate IT and customer service operations experience despite Liberty's findings to the contrary. Emera further explains that it had no reason to believe that its management was not reasonable during the project because AAC's Project Management Quality Report never identified the project as "troubled", the bottom of five project rankings.

Regarding Liberty's conclusions, Emera argues that Meridian found that the Company's project schedule detail to be reasonable contrary to Liberty's conclusion that

---

[107] *Id*. at 8-9.

[108] *Id*. at 13.

[109] Id. at 18-19.

it was inadequate.[110] In addition, Liberty critiqued Emera's decision to delay go-live dates, but also ultimately acknowledged that this decision was correct. The Company also asserts that the Commission should consider Liberty's "conclusions in the light of Emera's overall course of conduct in the CIS implementation", citing in support *Maine Public Utilities Commission, Investigation into the Annual Reconciliation of CMP's Stranded Cost Revenue Requirement and Costs*, Docket No. 2006-200, Order at 1 (Mar. 24, 2008).

Emera also critiques Liberty's claim that Cayenta is not a Tier 1 vendor, stating that this is unsubstantiated opinion and, regardless, there is no evidence that Emera was mistaken in selecting a Tier 2 vendor. Further, Emera states that there is no evidence that the costs of Vendor 2 would have been less than the $30.8 million that accrued with Cayenta. According to Emera, the total project costs associated with Vendor 2 and the necessary staffing could have reached $40 million. In addition, Emera argues that Liberty should not have included the three months between the execution of contracts and the project kick off date in its calculation of the 45 months it took the Company to complete the project, reducing the 12-month delay claimed by Liberty to 9 months.

Finally, regarding the CIS implementation accounting, Emera asserts that, in accordance with Commission precedent, direct charging for vacation, sick, and holiday related costs to the project is preferable because it more accurately captures project costs and cites *In re Northern Utilities, Inc., Request for Approval of Management Service Agreement*, No. 2004-00537, Order at 6 (Nov. 8, 2004) and *Maine Public Service Company, Request for Approval of Reorganization*, No. 1998-00138, Order, at 6-7 (Sept. 2, 1998). However, the Company recognizes that approximately $53,000 of discrete costs should not have been charged to the project.

4. <u>OPA</u>

The OPA presented the testimony of Karl Pavlovic in response to the Liberty Report. Mr. Pavlovic concluded that since Emera Maine failed to use a two-stage RFP process, Emera Maine did not demonstrate good utility or sound management practice in its vendor selection and execution process. Based on the findings contained in the Liberty Report, Mr. Pavlovic also concluded that Emera Maine did not act prudently in its management of the CIS project. Mr. Pavlovic, however, took issue with Liberty's calculation of the damages resulting from Emera Maine's imprudence. Specifically, Mr. Pavlovic argued that Liberty's rationale for its calculation of damages is based on the unfounded assumption that there was no practical way to calculate the impact of factors working for and against the efficient performance of the direct project and, therefore, the factors were assumed to net out to zero.[111]

[110] *Id*. at 28.

[111] Pavlovic Pref. Reply Test. at 14.

Mr. Pavlovic testified that rather than trying to attempt to identify the inefficient cost incurred as part of a poorly managed and documented process, the focus should be on identifying the just and reasonable cost of the CIS. To do this, Mr. Pavlovic calculated the reasonable project cost based on the original terms of the Cayenta and AAC contracts (30 months) and the original project budget. He then added a 10% contingency to both the project duration and the project budget to yield a reasonable project duration of 33 months and reasonable cost of $20,762,587 which is the amount that should be the responsibility of ratepayers. Mr. Pavlovic noted that his estimate of reasonable costs is at the high end of AAC's estimated cost range.

In reply to the responsive testimony of the Company's witnesses, Mr. Pavlovic argued first that the Company's witnesses have misstated the Commission's prudence standard and instead have articulated an imprudence standard which requires a demonstration that based on all the reasonably available information the utility's decision was unreasonable. Second, Mr. Pavlovic testified that, contrary to Emera's apparent belief, utility capital budgets are not simply estimates of what a project might cost. They are, or should be, based on detailed plans, the efficient execution of which will result in the completion of the project at or near the budget.[112]

Finally, Mr. Pavlovic testified that Emera's response to the Liberty Report concedes all of Liberty's findings and conclusions by stating variously that: (1) Emera took corrective action in the course of the project, (2) Emera relied on AAC and/or the corporate qualifications of AAC and Cayenta, and/or (3) Emera's actions were reasonable in light of industry experience by (4) offering an explanation that is irrelevant or otherwise non-responsive to the substance of the finding or conclusion.

In its brief, the OPA argues that the testimony of Company witnesses Richardson and Holyoke should be given little weight since neither witness has any experience in IT or IT implementation and since neither witness was actually involved in the implementation of the CIS project. The OPA also argues that the statements provided by the witnesses, were often contradicted by other information. Citing both the example of the specific budget information which was provided by AAC contradicting Ms. Holyoke's testimony that the AAC budget estimate was a bare unsupported statement and prior information which had been provided by the Company with regards to Vendor 2 and the witnesses testimony that Vendor 2 failed a demonstration test during the evaluation.[113]

The OPA argues that there is no support for Ms. Holyoke and Mr. Richardson's testimony that had Emera Maine selected Vendor 2, the costs to Emera Maine would have been significantly more. The logic that led to Mr. Richardson's calculation of a $40 million total cost had Vendor 2 been selected is based on the flawed logic that the Vendor 2 bid price differential could be projected out to all other costs. The OPA argues that Vendor 2, unlike Cayenta, was a first tier CIS developer with experience in

[112] Pavlovic Pref. Reply Test. at 8.

[113] OPA Brief at 9-11.

restructured markets and it is more likely, given Vendor 2's experience, that there would have been less delay and less costs rather than more.

The OPA also argues that the testimony of the Company's Meridian witnesses, Selders and Theilacker, should be disregarded. In support of this position, the OPA notes that Mr. Theilacker has no utility background whatsoever and that Mr. Selders, who responded to most of the questions at the technical conference and hearing, has never been involved in a regulatory prudence investigation and has only been involved in two CIS implementations. Pointing to Libery's response to the Meridian Report's FTE analysis, the OPA argues the Meridian's so-called "27" analysis is not worthy of consideration.

According to the OPA, the prudence standard required that Emera develop a sound plan for implanting the CIS at the outset and that it effectively respond to changes as they occurred during the course of the implementation. The OPA argues that Emera Maine failed on both counts. A direct consequence of this management failure was the very large number of change requests that emerged as the initial go-live date approached. The flurry of change orders occurring close to the initial go-live date demonstrates the depth of management's misunderstanding of the status of the project's schedule and scope.

The OPA also argues that Emera' management understood the requirements of managing the project from the outset and purposefully took actions which were contrary to those requirements. The OPA points to Emera Maine's management's failure to hire a senior project manager at the outset despite its representation to the Emera Maine Board in April of 2011 that it would hire a senior project manager to provide strategic oversight for the CIS project.[114] The OPA points to the decision to appoint Kim Wadleigh as the Project Sponsor, despite her role as Emera's V.P. of Transmission and Engineering.

The OPA urges the Commission to adopt Mr. Pavlovic's recommendation of a disallowance of $10,111,437. The OPA notes that in fact, Mr. Pavlovic's calculation of the disallowance amount was conservative since he did not have the AAC Operational Readiness Report at the time he made his recommendation and based on this information it is likely that his base budget number already had a contingency allowance. The OPA also notes that there are still a number of functionalities and capabilities, including group billing and supplier hourly pricing that have been deferred to Phase II from the original project scope. It is unclear as to when these functionalities will be added and at what cost. The OPA requests that the Company be directed to provide a clear picture of what costs remain for the BHD CIS project. In any case, ratepayers should not be asked to pay any of the additional costs related for these deferred functionalities.

[114] OPA Brief at 19.

5. Supplemental Bench Analysis

On October 7 the Commission Staff filed a Supplemental Bench Analysis. Much of the need for the Supplemental Bench analysis was prompted by the Emera Maine response to ODR-006-018 which attempted to clarify certain CIS project costs, including $4.7 million in Internal Costs and the $1.8 million in Labor costs that were coded “blank” in the Company’s work papers. In its analysis, Staff raised concerns surrounding several categories of project costs including the “Blank” charges and Internal Labor charges that were directly charged to the capital project instead of treated as an overhead expense. These direct costs can be grouped into two major categories: employee leave (approximately $390,000) and corporate compliance training (approximately $70,000).

In addition, as part of the Supplemental Bench Analysis, the Staff noted certain food and entertainment type expenses which were being capitalized and which raised concerns as to whether such costs should be recovered from ratepayers. Those costs included, for example, $400 for movie tickets, expenses for massages and yoga, and approximately $6,000 in purchases at Frank’s Bake Shop.

6. Discussion and Decision

a. Did Emera Maine’s Management Act Prudently With Regards to Requisition and Implementation of Its CIS?

Unlike many of the matters that come before the Commission, the question of whether a utility management acted prudently involves an assessment of the factual circumstances relating to the subject of the prudency investigation, often done by third parties. This can, as it has here, bring into question the credibility of the third parties or witnesses, who are testifying on the issue.

A review of the testimony and the briefs in this case as they relate to the CIS issue reads somewhat like a he said/she said novel with one party saying that “management didn’t do this” and the other party responding “oh yes we did.” The OPA in its brief argues that the testimony of Company witnesses Holyoke and Richardson should be given little weight since these witnesses have no IT or IT-implementation experience and neither was involved in the project. With regards to the Meridian witnesses, the OPA argues that their testimony should be disregarded completely since these witnesses have little direct experience with CIS project implementation and since neither of the Meridian witnesses have testified on the issue of prudence previously. On the other hand, the Company argues that Mr. Pavlovic’s testimony should be given little weight since he has no real IT experience and did not conduct a first-hand review of the project. In addition, Emera argues that the Meridian witnesses testimony should be given more weight than the Liberty witnesses, since the Meridian witnesses have more IT experience than Liberty’s expert, Ms. Minton.

The Commission agrees with the arguments that have been made with regard to the expertise of witnesses Holyoke, Richardson, and Pavlovic in the area of IT

implementation. None of these witnesses has any significant experience in the field and to the extent that such witnesses provided testimony in this area, such testimony will be given the appropriate weight given the witnesses lack of technical IT expertise. However, each of these witnesses is clearly qualified to testify on the management aspects of the case.

The Commission does not accept the OPA's argument that the Meridian witnesses testimony should be disregarded. Mr. Selders has extensive experience with IT implementation and IT project management. The Commission also does not accept Emera Maine's argument that Meridian's credentials are superior to the credentials of the Liberty audit team and, therefore, the Liberty Report should be given essentially a junior ranking. As discussed in the Liberty Report, Ms. Minton has led over 25 business case engagements for CIS and related projects. She has also provided Project Quality Assurance/Independent Verification and Validation (IV&V) for 19 software and services implementations projects. In addition, Mr. Antonuk, who worked with Ms. Minton on the CIS evaluations, has managed more than 40 management operations audits which have addressed a wide variety of governance and management issues.

Emera and Meridian have also questioned the validity of the Liberty Report on the grounds that Liberty used an invalid "good utility practice" standard, rather than the prudence standard, to assess the management of Emera Maine's CIS. They argue that applying this incorrect standard essentially renders the Liberty evaluation meaningless for this proceeding. The Company's suggestion that Liberty, with over 30 years' experience in performing such audits, somehow misunderstood the directive contained in the Commission's Order Initiating Management Audit seems incredible. In any case, Liberty put this issue to rest in its Reply Report when it stated quite clearly that it used the team "good utility practice" to equate with the prudence standard.

In assessing the validity of the various positions here, the Commission ultimately finds that Liberty's assessments regarding the reasonableness of Emera Maine's management practices to be credible **[BEGIN CONFIDENTIAL]** [redacted]

[redacted]

[redacted] **[END CONFIDENTIAL]**

In its Report, Liberty concludes that the lack of experienced resources affected cost, quality, and schedule noting that it was unclear if either the Cayenta and AAC Project Managers had ever developed a project plan for a project of this size.[118] Liberty also concluded that the lack of a strong project approach coupled with variable quality of status reporting complicated efforts to identify and resolve problems in a timely manner.[119] **[BEGIN CONFIDENTIAL]** [redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted]

[116] Staff Exh. 8 (ODR 04-15 Attachment A pgs. 13 and 15).

[117] Oct. 20, 2016 Hearing Tr. 48-52.

[118] Liberty Report at IV-21.

[119] Id. at IV-22.

[120] Staff Exh. 8 (ODR 04-015, Attachment A at 18).

[redacted]

[redacted]

[redacted]

[redacted]

[redacted] [redacted]

[redacted] [redacted]

[redacted] [redacted]

[redacted] [redacted]

[redacted] [redacted]

121 Staff Exh. 9 (ODR 11-04 Attachment B pg. 6).

122 Staff Exh. 9 (ODR 11-04 Attachment E pg.16).

123 Oct. 20, 2016 Hearing Tr. 74.

[redacted]

[redacted] **[End Confidential]** We would also note that the Meridian witnesses, as part of their Reply to Testimony of Karl Pavlovic, provided an additional analysis of the cost of staffing the project with additional FTE's in response to the Liberty Report. This analysis, which was submitted under the cover of the Reply to Testimony of Karl Pavlovic, was in no way a response to such testimony but was rather a supplement to Meridian's witnesses September 8, 2016 response to the Liberty Report. These facts cause us to at least partially, question the impartiality of the Meridian witnesses.

The OPA appears to raise the argument that Emera's initial choice of Cayenta, who did not have experience in implementing CIS projects in restructured markets, was itself imprudent. The Commission is in agreement here with the Company and Liberty, that Emera's selection of Cayenta, an experienced CIS vendor, was not itself imprudent. However, given Cayenta's lack of experience in restructured markets and the fact that Cayenta, by and large was able to achieve its price advantage over Vendor 2, a highly qualified CIS developer, by bidding significantly less hours, Emera Maine should have been alerted to the need to provide a sound project management structure, follow sound management procedures, and adequately staff the project. As described in both the Liberty Report **[Begin Confidential]** [redacted] **[End Confidential]** Emera Maine failed to do so. Given the size and significance of the CIS project, and the expectation that Emera Maine's managers possess a high degree of financial and technical expertise, the Commission finds that these failures rise to the level of imprudence.

The Company, in a number of places, asserts that the shortcomings discussed above are based on hindsight and that management could not have known the problems that it would encounter until it "took the top off" of its existing interfaces and began testing. By their very nature, prudence reviews are rearward looking since we are making determinations about past events. The question here is whether Emera Maine's course of conduct was reasonable based on the facts that were known, or should have been known, at the time it was implementing the CIS project. *Seabrook, supra.* at 13.

[Begin Confidential] [redacted]

[redacted] **[End Confidential]** The Company's various project management failures and its failure to adequately staff the project must be viewed in the context of this backdrop. When this is done, we find that Emera Maine's management of the CIS project was not reasonable based on the facts that were known to management at the outset of the CU-CIS implementation.

The Company also argues that its small size should excuse its performance here. In addition, the Company notes that while it is experienced and proficient in utility infrastructure capital projects, information technology is outside of the Company's usual expertise. Many of the deficiencies identified by the Liberty Report **[Begin Confidential]** [redacted] **[End Confidential]** involve basic management techniques and do not necessarily require extensive knowledge of IT. We would expect Emera Maine's management to possess these management skills regardless of its size. In addition, we would note that the information technology function is now an important aspect of a utility's overall function of providing safe, adequate, and reasonable service to its customers. While we do not expect utility executives to be IT experts, we would expect that they can capably manage an IT project. That is not to say that IT projects are not complex or do not involve a number of risks. They are both complex and involve risks. Our finding of imprudence is not based on this CIS Project turning out badly. It is based on our view of the evidence that Emera Maine's management did not take the appropriate steps to manage the complexities and risks of the CIS implementation.

Finally, with regards to the small size issue, we note that Emera Maine is part of a much larger corporate enterprise, Emera, Inc. When the Commission approved the merger between Emera, Inc. and the then BHE, the Commission was told that a significant benefit of the merger was that BHE would now be part of a much larger organization and would have access to the management expertise that goes along with such an organization. Chris Huskilson, the CEO of Emera Inc., specifically testified in that proceeding that the ability to call upon Emera Inc.'s resources will help BHE in areas where demands on its Staff may have been a problem in the past, such as in the development and use of information systems. While Emera Maine did utilize some Emera, Inc. corporate family resources, given the size of the project and Emera Inc.'s apparent commitment to help BHE/Emera Maine in such situations, the resources provided were minimal and clearly insufficient.

Regarding Emera's "morale boosting" expenditures for items such as yoga, movie tickets, birthday lunches, etc., given the context of these expenditures in a project which was significantly over budget, we understand the concerns raised by Staff in its Supplemental Bench Analysis. At the hearing, Mr. Richardson testified that these types of expenditures are typical for a project such as this. Mr. Richardson's testimony seems to be confirmed by the budget developed by AAC which explicitly included a line item for "Team Events". It further appears that the spending on this line item was within the range estimated by AAC. The Commission, therefore, concludes that such spending was not unreasonable or imprudent and, thus, will not be disallowed.

Having found that Emera Maine's management did not act prudently with regards to the management and implementation of the CIS project, the next area of inquiry is what damages if any, were caused by the imprudence, and how should any damages be calculated.

b. <u>What Damages, If Any, Should Be Found To Result From Management's Imprudence?</u>

The OPA urges the Commission to adopt Dr. Pavlovic's recommendation that the prudence disallowance in this case be based on Emera Maine's initial budget of $18 million adjusted for a 10% contingency which yields a disallowance of $10.1 million. The OPA reasons that had Emera been prudent, it would have been able to bring the project in at close to this budget amount. As noted in the previous discussion, given their nature, CIS projects are extremely complex. As such, it is extremely difficult to forecast, with a high degree of precision, what actual costs will be. While we believe that the failure to bring a CIS project in at budget can raise some red flags and give some indication of a troubled project, as it did here, the failure to attain the budget level does not, in and of itself, equate with imprudence. Nor does it in the context of a CIS implementation, provide a reasonable basis to measure the damages which results from imprudent conduct. The Commission, therefore, rejects Dr. Pavlovic's proposed prudence dis-allowance.

On the other hand, the Company urges that even if imprudence is found, there were no damages as a result of such imprudent actions. In support of this position, the Company relies on the Meridian FTE analysis. The Commission concludes that the Meridian analysis does not provide a reasonable basis for measuring the damages, or lack of damages, resulting from management's imprudence. Most importantly, the Meridian analysis assumes that Emera's only failure here was not to staff the project adequately. In other words, there would have been no delay, and no additional costs, if the project had been staffed adequately. As discussed above, this was not the case. The Commission has found that there were a number of other instances where management failed to act prudently and these instances of imprudence were likely additional causes of project delay and additional costs.

The Meridian analysis also did not adequately account for the amount of Company resources already included in the budget calculations. The initial FTE analysis, assumed that all 27 FTE's would be utilized at the project's outset. The Meridian witnesses apparently tried to rectify this issue by providing the additional analysis in the Reply to Pavlovic Testimony. This testimony which was mislabeled as a Reply to Pavlovic Testimony, was never subjected to discovery. Moreover, the second analysis seems to grossly overstate the costs of the FTEs. In its supplemental analysis, Meridian calculates the incremental FTE cost to be $18.1 million based on AAC's schedule of FTE deployment. Meridian seems to ignore, however, **[BEGIN CONFIDENTIAL]** [redacted] **[END**

124 Emera Maine Exh.2.

CONFIDENTIAL] Thus, the Meridian calculation apparently overstates the estimated impact of appropriate staffing by approximately $15 million.

The Commission has recognized that it is often difficult to determine what the impact of imprudent conduct is. However, the fact that the effects of imprudence cannot be measured with precision does not excuse imprudent conduct. In *Central Maine Power Company, Application for Fuel Cost Adjustment Pursuant to Chapter 34 and Establishment of Short-Term Energy Only Rates for Small Power Producers Less Than 1 MW Pursuant to Chapter 36 (Investigation of QF Contracts),* Docket No. 92-102, Order at 55 (Oct. 28, 1993), the Commission reasoned that:

> It is true that a precise measurement of the rates that would have resulted had the Company followed a prudent and reasonable course of action is difficult to estimate at this time. This is typically a problem when measuring the harm of a course of conduct not taken. Still, the regulatory response must never be to ignore unreasonable and imprudent utility action because measuring precisely the costs of the reasonable and prudent course of action are difficult or even impossible. In fact, we believe that our statutory duty to set just and reasonable rates would be violated if we set rates that reflect costs that are clearly unreasonable. *See* 35-A M.R.S. §§ 301(1) and (4) (1988).

Thus, like many prudence cases, it is difficult here to measure or determine what the costs of the project would have been if the project had been managed prudently because we are trying to estimate the costs of a course of conduct that did not occur. Given the difficulty of the task, the Commission finds that the methodology employed by Liberty to calculate damages is reasonable, if not somewhat conservative.

In its calculation, Liberty does not assign any of the costs associated with the additional technical work on the project identified during the change order process to management imprudence. Given the additional costs associated with the false go-live starts, such as retraining, this assumption may be conservative. The only costs assigned by Liberty to be attributable to management were the additional costs associated with the additional time needed to manage the project over an extended period of time. Mr. Richardson acknowledged that project delays would result in additional costs associated with additional management time.

Liberty's calculation of the cost rates to be used in calculating the damages is not in dispute. What is in dispute is the amount of additional project time that can be attributed to management's imprudence. Liberty provided for a six month grace period which by its own admission is subjective. While not scientific, given the entirety of the evidence, including the original estimate of the schedule, the failure to adequately devote resources and the project management issues discussed above, the Commission finds the six month allowance, and the resulting determination of a 12 month management attributable delay, to be reasonable

Liberty calculated the costs of the management attributable delay of 12 months to be $2.0 million. The basis of this calculation is reasonable and does not appear to be in dispute. Liberty concluded that an AFUDC component then needs to be added to this amount. In his Rebuttal Testimony, Mr. Dawes provided two alternative methods of calculating the AFUDC attributable to the delay; one which bases the calculation on a re-profiling of the capital on a straight-line basis and the other which bases the calculation on re-profiling based on the actual spending profile. Since the spending during the project did not occur on an even or straight-line basis, we find the second methodology to be superior. The resulting AFUDC adder, after adjusting for overheads, is $448,618.

In its exceptions to the Examiner's Report, the Company argues against including an AFUDC amount in the damages calculation. According to the Company, its net present value analysis shows that had the Company brought the project in on-time and at the completed cost, less the $2 million attributable to the delay, ratepayers would have paid an additional $400,000 over the life of the project by its inclusion in rate base in July, 2014. First, we would note that Emera's net present value analysis is not in the record and, in thus case, cannot be considered. Second, even this calculation could be considered, it completely ignores the fact that the project was not completed in July 2014 and ratepayers did not have the benefit of the project being in service. Thus, Emera's analysis attempts to capture the costs of having the project in service when, in fact, it was not in service. The Commission finds the inclusion of the AFUDC adder, which reflects the fact the Company's rate base inappropriately included amounts for the portion of the CIS project that the Commission has disallowed for management attributable delay and included such costs over a period that should have been 12 months shorter, to be reasonable. This results in a total CIS disallowance attributable to Emera's imprudence of $2,448,618.

As was discussed at the hearing, the Company has yet to incorporate all of the functionalities which were included in the original project scope and project budgets. One of the missing items is supplier hourly pricing, a very important component of a billing system in a restructured market such as Maine. At the hearing, the Company was unable to say what the costs of including these deferred functionalities will be. While we are not in a position to judge the prudence of such additional expenditures at this point, we would point out that our view of whether such costs are reasonable will be viewed through the prism of the evidence and the findings in this case.

c. <u>Calculation of Project Overheads</u>

On October 12, 2016 Emera Maine responded to the Supplemental Reply Bench Analysis in the form of Technical Conference Exhibit 1 in which the Company attempted to address the issues the Staff raised in its Analysis. Emera Maine clarified that the $4.7 million of Internal Costs labeled "blank" included Company overheads consisting of the following: Employee Benefits; Payroll Taxes, or FICA; G&A, or back-office costs that support capital projects; Transportation Overhead; and Stockroom Overhead. The $1.8 million in internal labor expense labeled "blank" were labor charges where the employee did not enter a description when completing their time sheets. Additionally, the

Company argued; "since the Company had dedicated employees assigned to the CIS project, a decision was made that these employees should charge their vacation, sick and holiday time directly to the project and not treat these costs as overheads."[125]

At the October 21, 2016 hearing, the Company reiterated its position that the CIS project was unique and that the labor costs should be applied directly to the project when possible. The Company conceded that this accounting approach was not consistent with how it normally treated these charges for a capital project.[126] These charges included not only the traditional overhead charges such as vacation and sick leave but also included corporate mandated training as well.[127] Mr. Dawes explained that these costs were included in the CIS project as direct labor. All direct labor dollars charged to the project also had the corporate overhead applied, even those hours which would normally be associated with overhead. In an effort to determine the magnitude of a potential double count, Mr. Dawes calculated the effect of this error for the period 2011 to 2016 using a modified 2015 rate for all years to be $50,149.[128]

While the Company may have a valid argument for employing its novel approach of directly charging vacation, sick and holiday hours to the project, when questioned about inconsistencies in the manner in which employees logged their hours it is clear that any procedures that may have existed providing guidance to the project team were not enforced by management.[129] Had the hours not been charged directly, Mr. Dawes stated they would have been charged to an operating expense account.[130] At the hearing, Mr. Dawes explained the process would entail putting all of the dollars back into the overhead calculation to determine a revised rate. The rate would then need to be applied to every capital project to determine the net effect.[131] While this may in fact be appropriate, we do not have the record evidence necessary to do this calculation here. It should be noted, however, that this lack of internal control is another example of how the Company did not sufficiently manage the CIS project.

The Company has acknowledged the overhead rate applied to labor dollars was also applied to these direct employee leave hours which resulted in a double count of $50,149 overhead costs. Therefore, these costs will be removed. Additionally, the decision to direct charge overhead hours and then not manage the process for employee time reporting is more evidence that may be considered as part of the calculation of a management efficiency adjustment.

---

125 Technical Conference Exhibit 1 at 2.

126 Oct. 21, 2016 Hearing Tr. at 9.

127 Id. at 6.

128 Id. at 26.

129 Id. at 9.

130 Id. at 6.

131 Id. at 27.

VII. RETURN ON EQUITY AND COST OF CAPITAL

A. Positions of the Parties

1. Emera Maine

Emera argues that the Commission should adopt the 10.25% return on equity (ROE) recommended by its witness, Mr. Perkins, because it is the result of a more comprehensive and reliable analysis than those submitted by the OPA witness or presented by Staff in its Bench Analysis and best accounts for the impact of anomalous market conditions on the results. Specifically, Emera argues that its witness used five different models to arrive at his recommended ROE and included an additional risk premium model in his rebuttal testimony. Generally, the Company argues, a more comprehensive analysis that uses several sources of information and weighs the impact of current conditions on model results is more likely to yield more accurate results.

Emera also argues that interest rates and utility share prices have been anomalous since the Federal Reserve began lowering the Fed Funds rate in late 2007 and that the analysis presented by Mr. Perkins is "most likely to correct for the effect of these abnormal economic conditions that are implicitly accepted as normal by the limited suite of models relied upon by other parties."[132]

In his rebuttal testimony, Perkins updated his cost of equity analysis to incorporate more recent market data into his discounted cash flow (DCF) models, Capital Asset Pricing models (CAPM) and risk premium models. In addition, Perkins made several revisions to his proxy group of comparable electric utilities to reflect recent merger activity, merger activity long enough in the past to make inclusion of the company reasonable and, in one case, the resumption of dividends. The final proxy group consisted of 20 companies. Perkins calculated DCF results using growth rates based on long-term earnings per share growth projections from three securities analysts.[133] Mr. Perkins developed his constant growth DCF range based on the lowest of the three projections (referred to by Perkins as Mean Low), the highest of the three projections (Mean High) and the average of the three growth projections (Mean). He gave the Mean Low DCF results no weight in his analysis, noting that the results are below any awarded ROEs since 1980 (which included only three authorized ROEs below 9.00%) and further noting that, although he included a Mean DCF result in his average, it too is below 9.00%, making it highly unlikely.[134] The DCF based ROE range developed by Mr. Perkins, which includes a flotation cost adjustment of 0.12% and disregards his Mean Low analysis, is 9.08% to 10.60%.

---

[132] Emera Brief at 24.

[133] Long-term growth estimates from Zacks consensus long-term earnings growth, First Call consensus long-term growth estimates and Value Line long-term growth estimates. Perkins Pref. Reb. Test. at JP-34.

[134] Id. at JP-35.

In addition, Mr. Perkins provides a CAPM and Empirical CAPM (ECAPM)[135] analysis that includes the flotation cost adjustment and indicates an ROE range of 9.22% to 12.33%; and a Bond Risk Premium analysis that indicates an ROE range, excluding flotation costs, of 10.04% to 10.47% and a Predictive Risk Premium Model (PRPM) that indicates an ROE range of 10.46% to 12.46%.[136]

2. Office of the Public Advocate

The OPA recommends that the Commission adopt a 9.02% ROE for Emera based on the DCF methodology used by its witness, Dr. Griffing, in his surrebuttal testimony. The OPA states that the cost of equity capital is the rate of return that Emera must pay to investors to induce them to invest in its regulated operations and argues that the DCF methodology reflects the factors and opportunity costs that influence investor expectations because current market prices are a key input into the model. In addition, the OPA argues that the DCF analysis is a forward-looking model that incorporates investors' view of the world and does not require ad hoc adjustments.

The Public Advocate states that Dr. Griffing verified the reasonableness of the ROE range developed using the DCF methodology by applying the CAPM to a comparable group of utilities. The CAPM analysis produced a return on equity of 8.73% which is within the ROE range developed using the DCF methodology. The OPA states that, while it is true that interest rates are historically low and are likely to rise, there is no consensus with respect to when and at what pace they will rise. Moreover, the OPA argues that current common-equity share prices already reflect investors' thinking about the effect of future interest rate increases on the attractiveness of various investments and is already captured in the DCF model. Thus, the OPA asserts, the DCF model captures higher future interest rates that investors truly expect are coming. Finally, the OPA accepts the capital structure proposed by the Company.

In his surrebuttal testimony, as in his original testimony, Dr. Griffing primarily relied on a DCF analysis and used a CAPM analysis as a check on the DCF results. In addition, Griffing made several revisions to his proxy group of comparable electric utilities to reflect recent merger activity. The final proxy group consisted of 23 companies. He incorporated current market price, dividend and dividend yield information for his selected proxy group and included a flotation cost adjustment as recommended by Emera. He based his growth rate factor on projected growth rates as provided by Zacks Investment Research, Thomson Financial and Value Line and used the average of these three estimates to develop an ROE range of 8.37% to 9.77%, with a mean of 9.02%. Dr. Griffing also provided a CAPM analysis that included a flotation

[135] The ECAPM model corrects for the empirical observation that the securities market line has a shallower slope than would be indicated in the normal CAPM model. The securities market line is a graphic representation of the capital asset pricing model. It displays the expected rate of return of an individual security as a function of systematic, non-diversifiable ("market") risk.

[136] Perkins Pref. Reb. Test. at JP-51.

cost adjustment and indicated an ROE of 8.73%. Finally, Dr. Griffing presented an analysis of inflation-adjusted ROE awards showing that real average annual ROE awards have been between 7.27% and 10.62% from 2004-2016 and concluded that it is misleading to compare nominal ROE awards over a long period without taking into account contemporary economic conditions.[137]

3. Bench Analysis

In its Bench Analysis, the Staff recommended an ROE of 9.36%, which included a flotation cost adjustment. In arriving at its recommendation, the Staff developed a proxy group of electric utilities that consisted of 19 companies and used a DCF analysis, both a constant-growth model and a two-stage growth model, and a CAPM calculation as a check on the DCF results. Staff developed a DCF range of 8.85% to 9.20% and a CAPM range of 8.70% to 10.85%. In its DCF analysis, Staff used three different future growth rates, including a projection of GDP growth provided by the Congressional Budget Office, a growth rate derived by Mr. Perkins and a growth rate obtained by averaging the analysts' long-term earnings growth projections. Staff did not dispute the Company's inclusion of a flotation cost adjustment, its recommended capital structure or the calculation of the cost of the long-term debt or the preferred stock components of Emera's capital structure. Staff did recommend an adjustment to the cost of short-term debt as discussed below.

B. *Hope-Bluefield* Standard

Two United States Supreme Court decisions of more than 70 years ago, known as the *Bluefield* and *Hope* cases, provide the standards for measuring the reasonableness of a utility's allowed ROE. Taken together, the *Hope-Bluefield* decisions establish that:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made…on investments in other business undertakings which are attended by corresponding risks and uncertainties…The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties...

Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679 (1923).

[137] Griffing Pref. Surr. Reb. Test. at 27.

Additionally, the idea of associating the allowed return to a common equity owner with those available from other companies of comparable risk was established in the *Hope* decision:

> [T]he return to the equity owner should be commensurate with the return on investment in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944).

The *Hope-Bluefield* standard has long served as the benchmark against which this Commission measures an appropriate ROE. As noted by Dr. Griffing in his Testimony, in setting an appropriate rate of return:

> “[t]he Commission should look to current market conditions as it balances investor and consumer interests. The rate of return should reflect the condition of the capital markets in which the companies will have to compete with other firms for funding. Under this forward-looking approach, historically allowed rates and historical performance are irrelevant issues except as they affect investors’ views of a company’s prospects.”[138]

C. Base Return on Equity

As noted by the Company in its brief, three different ROEs have been proposed in this case based on several analytical approaches. The Company recommends an ROE of 10.25%, the Public Advocate recommends 9.02% and the Staff Bench Analysis indicated an ROE of 9.36%. All parties based their analyses on a group of electric utilities that present risks that are comparable to Emera Maine. We note that, although there are differences in the final proxy groups used by the OPA, the Company and the Staff, there is substantial agreement as 17 companies are included in all three of the analyses presented. This sample size is large enough and consistent enough to allow a meaningful analysis of market returns.

Consistent with our practice, the Commission relies primarily on a discounted cash flow analytical structure to determine an appropriate ROE and uses CAPM results as a check on the DCF results.[139] The Commission’s reliance on the DCF market-oriented approach to determine the common-equity cost for the Company is consistent with the *Hope-Bluefield* standard in that it incorporates the equity returns that investors currently expect to receive from investing in companies with risks similar to Emera Maine.

---

[138] Griffing Pref. Dir. Test. at 8-9.

[139] See, e.g. *Investigation of Central Maine Power Company, Company’s Revenue Requirements and Rate Design (Phase II)*, Docket No. 97-580, Order, (January 19, 2000)

The Company argues that these market based analytical approaches are inadequate for estimating an appropriate cost of equity for Emera Maine and that the Commission should rely on the results of the more comprehensive modeling used by its witness. We do not necessarily agree with the assertion that more modeling produces better or more accurate results. The OPA notes that the Company's analysis is predicated on several key conclusions: that the current interest-rate environment makes it unlikely that certain assumptions underlying the constant-growth model will hold; that the current interest-rate environment is anomalous and when the Federal Reserve increases the federal funds rate and normalizes monetary policy normalization measures, then utility stocks will become less attractive to investors and the cost of equity will rise; and that the formulation of the DCF model cannot adequately reflect these concerns.

The OPA argues that the DCF model already captures investors' expectations regarding higher future interest rates and that current equity share prices accurately reflect what investors think about the effect that higher interest rates may have on the attractiveness of an investment. Again, as noted by Dr. Griffing:

> "[m]any factors influence these investor expectations, among them: past performance of the companies, estimates of how the companies will perform in the future, and predicted general economic conditions. All of these factors and opportunity costs are considered by investors participating in the capital markets and are reflected in current prices in those markets. Thus, my analysis is forward-looking because it relies on investors' current assessment of what is likely to happen with their investments."[140]

We agree with the OPA and note that this view is consistent with the view that the securities markets are efficient in that all available information is already built into stock prices.

Additionally, we note that the Company's cost of capital testimony appears to diverge in some respects from Commission practice. Rather than using the results of the CAPM analysis and other analytical approaches as a check against which to evaluate the DCF results, Mr. Perkins asserts that the "DCF-based results should be viewed very carefully, and that somewhat more weight should be afforded the four Risk Premium-based methods (CAPM, ECAPM, Bond Yield Risk Premium, and Predictive Risk Premium).[141] The ECAPM model is a version of the CAPM model that corrects for the empirical observation that the securities market line has a shallower slope than would be indicated in the normal CAPM model. Thus, it appears that the Company's witness has placed additional reliance on the results indicated by a CAPM-based approach rather than using that analytical approach as a check.

[140] Griffing Pref. Dir. Test. at 9.

[141] Perkins Reb. At JP-51.

Similarly, in conducting the Risk Premium analysis, Mr. Perkins calculates the indicated ROE by adding his market risk premium to both current and forecast long-term Treasury rates, rather than only to current Treasury rates as has been our practice. In his rebuttal testimony, Mr. Perkins also includes the results of a PRPM analysis. In a case involving the return on equity for Maine Water—Camden Rockland Division, this Commission considered ROE testimony that included a PRPM analysis. In declining to incorporate these results into its cost of equity determination, the Commission stated:

> "At this point, we are not prepared to incorporate the results of the analysis using the PRPM inputs into our determination of an appropriate ROE in this case. This does not however preclude us from future reliance once the model is fully vetted by academia and other regulatory bodies."

Maine Water Company-Camden & Rockland Division, Request for Approval of Rate Change, Docket No. 2013-00362, Order Approving Stipulation and Setting Return on Equity at 12, (March 25, 2013).

The Company has not provided any testimony vetting the PRPM model or validity for use in a Commission rate proceeding. Thus, we do not agree with Mr. Perkins that "more weight" should be placed on the CAPM and risk premium results in determining a return on equity for Emera.

In examining the cost of equity analyses in the record, we agree with the assertion by Mr. Perkins that Staff's use of a CBO projection for a long-term growth rate is misplaced. In his rebuttal testimony, Mr. Perkins questioned the use of the CBO projection of GDP growth as it represented a shorter or intermediate term estimate rather than the long-term growth projections required by the DCF analysis. The CBO projection used by Staff extends only to 2026 and may not be a long-enough outlook to be appropriate. Thus, we include only the Staff DCF results that used the growth rates derived by Mr. Perkins or calculated by averaging the analysts' projections.

Additionally, we have included the Mean Low DCF results as developed by Mr. Perkins. The exclusion of these results from consideration at this point in the analysis seems unnecessarily limiting. The reason cited by Mr. Perkins, that the results were lower than most of the ROEs awarded since 1980, does not seem to be a sufficient reason to disregard these calculations. Both Mr. Perkins and Dr. Griffing have noted the relationship between interest rates and utility returns and the fact that interest rates are currently at historically low levels. It is certainly plausible that the market-based analytical approach used by this Commission, and many other Commissions, suggests that investors may be demanding returns that are at commensurately low levels. Therefore, we do not choose to exclude an entire category of analytical results based on what appears to be a conclusion that the numbers are too low.

Taking all of the DCF analytical models into account, the indicated ROE supported by the DCF evidence ranges from a low of 8.25% to a high of 10.48% as shown in Table 11 below.[142]

Table 11.

Discounted Cash Flow Analyses

	Range of Indicated ROE Adjusted to Remove Flotation Costs		
	Low	High	Mid-Point
Griffing DCF	8.25%	9.65%	8.95%
Perkins DCF (Includes Low Mean)	8.41%	9.68%	9.05%
Perkins Multi Stage DCF	9.00%	10.48%	9.74%
Staff DCF (excludes CBO forecast)	8.85%	9.20%	9.03%
Staff Two Stage DCF	8.95%	9.15%	9.05%
All DCF Results	8.25%	10.48%	9.37%

We note that the upper end of the ROE range produced by the Multi-Stage DCF analysis provided by Mr. Perkins is 80 basis points higher than the upper end of the ranges produced by the other DCF-based analyses in the record and is the only one above 10%. This high end, therefore, may be an outlier and has the effect of raising the calculated mid-point of the overall DCF range.[143]

The Company and the OPA, as well as the Staff, provided a CAPM analysis as a check to the DCF results. The Company presented a CAPM analysis and an ECAPM analysis that includes the flotation cost adjustment and indicates an ROE range of 9.22% to 12.33%. Dr. Griffing also provided a CAPM analysis that included a flotation cost adjustment and indicated an ROE of 8.73%. The Staff's CAPM analysis, which excluded the flotation cost adjustment, provided a range of 8.70% to 10.85%. For

[142] It should be noted that the indicated ROEs shown in Table 1 exclude any adjustment for flotation costs. The Company has recommended that the awarded ROE be adjusted upwards by 12 basis points to account for flotation costs. Both the OPA witness and the Staff do not disagree with this adjustment. We will make the flotation cost adjustment below.

[143] This high-end number results from the effect of one particular proxy group member used in Mr. Perkins' analysis which had a high-end growth rate associated with the calculation of an indicated ROE. Specifically, Mr. Perkins used an earnings growth rate of 9.00% for FirstEnergy Corp, significantly higher than the earnings growth rate used for most of the remainder of the proxy group. In all variations of the Multi-Stage DCF analysis provided by Mr. Perkins, the results for FirstEnergy set the upper end of the ROE range. Perkins Rebuttal, Exhibit JP-14a, Schedules 1-9.

comparability, the CAPM results of the Company and the Public Advocate should be adjusted to remove the effect of the flotation cost adjustment. Thus, the CAPM analyses presented in this case yields the following results.

Table 12.

CAPM Analyses

	CAPM Range Adjusted to Remove Flotation Costs		
	Low	High	Mid-Point
Griffing CAPM (mean β)	8.61%	8.61%	8.61%
Perkins CAPM	9.10%	11.53%	10.32%
Staff CAPM	8.70%	10.85%	9.78%
Overall CAPM Results	8.61%	11.53%	10.07%

As noted previously, the Commission's practice is to primarily rely on the DCF methodology results and to use the CAPM results as a check on the reasonableness of the DCF results. The DCF analyses produce an indicated range of ROEs from 8.25% to 10.48% with a mid-point of 9.37%. The CAPM analyses confirm the DCF results with the mid-point of the DCF analysis lying within the CAPM range. Notably, the low end of the range indicated by both analytical approaches falls near or below 9.00%. We find very little evidence in the record demonstrating that the risk profile of Emera Maine differs in any marked way from the risk profile of the proxy group upon which these results were determined. Thus, the evidence in the record and the Commission's preferred methodology support the conclusion that an ROE of 9.37%, at the mid-point of the DCF range and before the addition of the flotation cost adjustment, absent any other factors, would be an appropriate equity return for Emera Maine. We address below the question of whether additional qualitative factors justify moving the awarded ROE from the mid-point.

D. Flotation Costs

The Company has recommended an upward adjustment of 12 basis points to the awarded ROE to reflect the costs associated with the issuance of common stock. There is no dispute with respect to the inclusion of this adjustment or to the calculations supporting it. We find that the flotation cost adjustment of 12 basis points is reasonable, resulting in an unadjusted ROE of 9.50%.

E. Capital Structure

The Company proposes a hypothetical capital structure that includes a common equity layer of 49% and other components as shown in Table 13.

Table 13.

Capital Structure	Ratios
Long-Term Debt	47.25%
Short-Term Debt	3.68%
Preferred Stock	0.06%
Common Stock	49.00%
	100.00%

The OPA and the Staff agree with the proposed capital structure. The Commission finds that the use of a 49% common equity ratio is consistent with common equity ratios, generally, in the electric and gas utility industries. The Commission thus concludes that the Company's proposed capital structure is reasonable.

F. Cost of Short-Term Debt

The Company's original proposed capital structure included a component of short-term debt to which a cost of 3.85% was assigned. The Company projected its short-term debt rate based on a projection of the three-month London Interbank Offer Rate (LIBOR) rates plus 1.20%. As noted in the Staff's Bench Analysis, the Emera Maine revolving credit facility carries pricing of 1.25% above the one-month LIBOR. The Staff provided a projection of the one-month LIBOR rate plus the Emera credit spread of 1.25% to reach a short-term debt cost of 2.35%. In its rebuttal testimony, Emera revised the cost of short-term debt to 3.34% reflecting an updated forecast of the one-month LIBOR rate plus the 1.25% spread specified in its revolving credit facility. The Commission finds that Emera's revised projection of the cost of the short-term debt component of its capital structure is reasonable.

G. Management Efficiency Cost of Equity Adjustment

Section 301 of Title 35-A requires that the Commission shall, in determining just and reasonable rates, "to a level within the Commission's discretion, consider whether the utility is operating as efficiently as possible and is utilizing sound management practices." In similar language, the *Bluefield* decision specifies that, in cost of service ratemaking, "the return ….should be adequate, under efficient and economical management". Thus, the premise underlying both our statutory requirement and the *Hope-Bluefield* standard is that the cost of service and the attendant setting of an ROE are predicated on the utility's efficient operations and sound management.

There is strong Commission precedent for applying a cost of equity adjustment to reflect inefficient management. When the effect of the inefficient behavior has been

difficult to specifically quantify, the Commission has used an adjustment to the allowed equity return as the best ratemaking remedy to protect ratepayers from the inefficiency, in accordance with Section 301. As the Commission has stated,

> [T]he concept of "prudence" in utility regulation seems to be analogous to the statutory direction that the Commission should assess the efficiency of the operation and the use of sound management practices in setting just and reasonable rates. A standard of conduct is expected of utilities, that they operate efficiently, and that the failure to do so should be recognized in rates because it is presumed that inefficiency is harmful to ratepayers. Thus, harm is found even when the inefficiency has resulted in less expenses (at least in the short-term).
>
> *CMP Investigation of QF Contracts*, supra. at 59.

As examples of the use of an ROE reduction, the Commission imposed a 25 basis point reduction from the midpoint of the range of reasonable ROEs for Bangor-Hydro Electric Company because of management inefficiency in the credit and collection and conservation and demand side management areas. *Bangor Hydro-Electric Company, Investigation of Reasonableness of Rates*, Docket No. 86-242, Order, (Dec. 22, 1987). Subsequently, the Commission imposed a 50 basis points reduction on the cost of equity of Bangor Hydro because of inefficient performance in the area of least cost planning and conservation. *Public Utilities Commission, Investigation into Bangor Hydro-Electric Company's Performance, Policies and Management Practices in the Areas of Demand-Side Management and Integrated Least Cost Planning*, Docket No. 90-286, Decision and Order (Part III), (May 31, 1991). Similarly, the Commission adjusted the allowed return on equity for Central Maine Power Company to the low-end of the range of reasonableness based on the finding that CMP had not operated as efficiently as possible and had not been using sound management practices. *Central Maine Power Company, Proposed Increase in Rates*, Docket No. 81-127 and *Central Maine Power Company, Investigation of Justness and Reasonableness of Rates,* Docket No. 81-206, Decision and Order (Mar. 27, 1982). The Commission has also used an upward ROE adjustment to address well-managed utilities. *Consumers Maine Water Company—Millinocket, Proposed Rate Change (7.65% Increase in Revenue),* Docket No. 2000-96 and *Consumers Maine Water Company—Camden/Rockland, Proposed Rate Change (5.88% Increase in Revenue),* Docket No. 2000-175, Order (Part 2), (Sept. 26, 2000).

In this case, there is ample evidence that would support a Commission decision to reduce the Company's ROE to reflect the management inefficiencies identified. There are several fundamental functions that a utility must perform, including providing safe, reasonable and adequate facilities and service. As the Liberty Report describes, Emera Maine has struggled in some of its most basic functions. We highlight Emera's performance in two key baseline functions as symptomatic of less than efficient management practices. First, the Company has inadequately performed its meter-to-bill process and follow-up regarding collections and bad debt. Second, a utility should be available when a customer picks up the phone and calls. When customers have

problems the utility should generally be able to meet industry standards of 80% calls answered within 30 seconds. As noted, Emera Maine lowered its call answering goal to 70% at the beginning of 2015 and the auditors found that the Bangor Hydro District met this goal in only seven of the last 40 months.

The Liberty Report also included several additional findings regarding the Company's customer service organization, staffing and performance, including:

- Inexperience with the new customer system and inadequate staffing of the center created longer calls, longer customer wait times, repeat calls, and the high abandonment rate for the last three years

- Customers calling BHD experienced long wait times during 2014 and 2015, and again at the start of the credit season in 2016;

- Prior to 2014, Emera averaged 5-8% abandoned calls. That percentage rose significantly to 20% in 2014 and 17% in 2015, before moderating to 13% year-to-date 2016. Inexperience with the new customer system and inadequate staffing of the center created longer calls, longer customer wait times, repeat calls, and the high abandonment rate for the last three years; and

- Emera Maine has limited capacity to handle calls during large outages and weather events, which results in customers receiving a "polite disconnect."

These findings have led the Commission to conclude that the Company's operation of its Call Center has resulted in its customers receiving inadequate service. Specifically, the Company's Call Center performance has substantially departed from regular and accepted practices and has resulted in inadequate service when considering the number of customers affected by the departure from accepted and reasonably achievable service standards.

Additionally, as described, the Company has failed to maintain a schedule of regular inspection of roadsides and right of way transmission and distribution lines in 2014 and 2015 in both the Bangor Hydro district and the Maine Public district. The Liberty Audit report noted that this failure to conduct these inspections for two years violated good utility practice and created a situation in which opportunities to identify conditions that threatened system reliability were missed. This is particularly troublesome in light of Emera's relatively poor SAIFI and CAIDI as compared to other utilities.

Finally, certain practices observed in connection with the CIS project accounting call into question management's oversight of that project and the costs that were being charged to it. As noted, the Company chose to have employees directly charge vacation, sick and holiday hours to the project, but the manner in which employees logged their hours was clearly inconsistent. In fact, Company witness Dawes acknowledged the inconsistencies and stated, "certainly going into the project, the

understanding for the project team was if you're full time on the project, you're charging vacation, sick, and holiday… And I think probably as the project went on, that message wasn't given to new people that came onto the project. So their charges for vacation, sick, and holiday didn't necessarily get into the project."[144]

Thus, the Commission has considered several qualitative factors that justify moving from the 9.5% midpoint with flotation adjustment to a 9.00% ROE, which is at the low-end of the range. These factors are: (1) the aggressive high end growth factor used to generate the high-end of the DCF range which creates a relatively wide range in the DCF results of 225 basis points, from 8.25% to 10.48%; and (2) the demonstrated inefficient management in the record which has led to customers receiving poor service. We have not attempted to assign a particular value in basis points to the factors noted above, and would caution the parties against trying to do so in future rate cases. We simply state here that the above factors *in total* contributed to our decision to reduce the ROE by 50 basis points from the midpoint of the reasonable range suggested by the DCF models and supported by the CAPM results.

The Commission disagrees with Emera's exceptions characterizing the adjustment to ROE as a penalty. It is clearly within the Commission's discretion to set the ROE within a range of reasonableness indicated by the analyses in the record. In this case setting the ROE at the lower end of that range allows the company to attract capital but at the same time holds shareholders accountable for management's lack of efficiency. In a competitive market, shareholders make decisions about which companies to invest in based on how well they are managed and the return they generate for investors through the efficiency and effectiveness of their business operations. If management is to receive a signal for greater or lesser efficiency in managing the business practices and operations of the company they control, it is through the return on equity allowed in a rate case such as this.

As required by 35-A M.R.S § 301(4)(B), the Commission must consider whether the utility is operating efficiently and following sound management practices in establishing just and reasonable rates. It is clearly within the Commission's discretion to use its expert judgment to establish an return on equity within the range that is supported by the evidence in the case. In its review of the CMP decision in Docket No. 81-127 in which the Commission set the allowed ROE at the low-end of the reasonable range established by the expert witnesses in the case, the Law Court held that "[T]he Commission's determination of CMP's cost of equity in this case is independently supported by the record and falls within a range we find to be reasonable. Accordingly, we must uphold the Commission's decision as a proper exercise of discretion." *Central Maine Power Co. v. Public Utilities Commission,* 455 A.2d 34, 39 (1983).

The expert testimony in this case and the analyses in the record establish a fairly wide range of reasonable returns based on the DCF methodology, from 8.25% to 10.48%. In fact, the DCF-based analysis submitted by the Company's cost of equity witness established a range of returns with a low-end below 9.00%. A return on equity

[144] Hearing Tr. at 9.

of 9.00% falls within the range of reasonable returns supported by the evidence in the case and is a reasonable exercise of the Commission's regulatory judgment. Combining the adjusted ROE of 9.00%, the capital structure proposed by the Company and the cost associated with the other components of the capital structure results in a pre-tax weighted average cost of capital of 10.15% for Emera Maine as shown in Table 14 below.

Table 14

Capital Structure, Debt Cost and Adjusted ROE

Emera Maine Weighted Average Cost of Capital				
Capital Structure	**Ratios**	**Rate**	**Cost**	**Pre-Tax WACC**
				Tax Gross up 40.8045%
Long-Term Debt	47.25%	5.47%	2.58%	2.58%
Short-Term Debt	3.68%	3.34%	0.12%	0.12%
Preferred Stock	0.06%	7.00%	0.00%	0.00%
Common Stock	49.00%	9.00%	4.41%	7.45%
	100.00%			
Pre-Tax Weighted Average Cost of Capital				**10.15%**

The adjustment to Emera Maine's ROE shall remain in effect until the Company demonstrates to the Commission that its management practices and efficiencies, particularly in the areas of customer service and with respect to the Company's systems maintenance practices, have improved and have provided real benefits to ratepayers. Thus, the Company is not forestalled from returning with a rate case in which they demonstrate that the numerous improvements that management referred to during the course of this case have borne fruit and that the trends in service are in the right direction. Additionally, the Company might consider presenting a multi-year alternative rate plan that could both provide incentive for improved performance and enhanced earnings.

Dated at Hallowell, Maine, this 22nd day of December, 2016.

/s/ Harry Lanphear

Harry Lanphear
Administrative Director

COMMISSIONERS VOTING FOR: Vannoy
McLean
Williamson

NOTICE OF RIGHTS TO REVIEW OR APPEAL

5 M.R.S. § 9061 requires the Public Utilities Commission to give each party to an adjudicatory proceeding written notice of the party's rights to review or appeal of its decision made at the conclusion of the adjudicatory proceeding. The methods of review or appeal of PUC decisions at the conclusion of an adjudicatory proceeding are as follows:

1. Reconsideration of the Commission's Order may be requested under Section 11(D) of the Commission's Rules of Practice and Procedure (65-407 C.M.R. 110) within **20** days of the date of the Order by filing a petition with the Commission stating the grounds upon which reconsideration is sought. Any petition not granted within **20** days from the date of filing is denied.

2. Appeal of a final decision of the Commission may be taken to the Law Court by filing, within **21** days of the date of the Order, a Notice of Appeal with the Administrative Director of the Commission, pursuant to 35-A M.R.S. § 1320(1)-(4) and the Maine Rules of Appellate Procedure.

3. Additional court review of constitutional issues or issues involving the justness or reasonableness of rates may be had by the filing of an appeal with the Law Court, pursuant to 35-A M.R.S. § 1320(5).

Note: The attachment of this Notice to a document does not indicate the Commission's view that the particular document may be subject to review or appeal. Similarly, the failure of the Commission to attach a copy of this Notice to a document does not indicate the Commission's view that the document is not subject to review or appeal.